THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

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Farm Husbandry.

REARING, KEEPING AND FATTENING DOMESTIC ANIMALS.

The science of breeding, keeping and fattening domestic animals is too much neglected in the United States. Few practical farmers have the courage to take hold of the somewhat forbidding subjects of comparative anatomy, physiology and organic chemistry, with a resolute purpose to understand the living organism by which grass, hay, grain and roots are transformed into beef, mutton, pork, butter, cheese and wool. The natural machinery for effecting these important changes of vegetable into animal substances, deserves to be studied with great care, in order to make the most of the food consumed by every animal kept on the farm. There is no class that has reached perfection in yielding the largest product in flesh, milk or wool, for the aliment consumed in the course of its life time. All are fed unequally—sometimes too much and sometimes too little; and, again, they suffer from food more defective in *quality* than deficient in *quantity*. One often sees store pigs eat the dung of over-fed fatting hogs; and in this city, half-starved cows voraciously devour the solid excretions of corn-fed carriage horses. In rearing swine they are commonly under-fed about three-fourths of their lives, and over-fed the other fourth; so that in the aggregate not more than one-half as much meat is elaborated from the food taken into the stomach of pigs as might have been formed.

All animals demand a certain quantity of nutritive matter to preserve them in a normal condition, or to prevent their losing weight and becoming poor and poorer. In all cases where the object is to form meat, it is bad economy to keep animals for weeks and months, as thousands of farmers do, without gaining a pound of flesh, although they necessarily consume a large amount of food. This forms the manure; i. e. 100 lbs. of solid matter taken into the stomach yield 40 in dry dung yard and urine, and no more. If we feed much above the point of normal nutrition, a portion of the aliment fails to enter the lacteal vessels which surround the alimentary canal, and through which digested matter passes into the blood vessels to nourish the system. This excess of food, whether partially digested or not, passes on through the bowels and appears as feces or dung. There is always an immense loss in seeking to make animals excessively fat. Of course, when two or three prices are realized for such beef, mutton or pork, the loss in the waste of food, is paid by the consumer. Our object is to develope the true economy of making meat, regardless of the fact whether it is sold or consumed by the producer. This consists in providing a reliable supply of suitable food, so that the animal from its birth to the day of its being slaughtered, should steadily gain in weight. So long as it is adding to the length and size of its bones and muscles—growing—its system will be little inclined to take on fat, if not over-fed. Excessive stuffing and no exercise, bring the development of bone and muscle to a premature ripeness. They cease to expand, and you have a fat lap-dog or a pocket china pig. Habitual starving will also bring the carcass to maturity before it attains to its proper size. Skilful feeding implies that one never gives *too much nor too little*; and has the food well adapted to the constitution and habits of the animal, whether a horse, sheep, cow or swine.

This system of feeding is not so easy as some may imagine; for the quantity of grass that will grow on a given number of acres in pasture and meadow in a dry or wet season is very unequal. Hence, in the one case the farmer will have more feed than stock; and in the other more stock than feed. If one must err in the matter, it is usually better to have an excess, rather than a deficiency of forage. Grass left to rot on the ground in a pasture or meadow is far from being lost. It improves the soil.

After having taken all due pains to make two blades of grass and corn grow where only one of either grew before, the stock grower should study closely the business of breeding domestic animals.—The leading idea in this art and science is, to select the best males and females from which to propagate and improve the race. This rule applies alike to the equine, bovine, ovine and swine families. In each genus there are several species, in each species there are numerous breeds, and in the several breeds not a few varieties. It is no part of our duty to attempt to write up one species or breed of animals, whether of cattle, horses, hogs or sheep, and to write down another. Practical farmers know best what kind of stock will suit their land and markets. Our advice, if offered, would be quite as likely to miss as to hit the wants of the reader. There is more difference in the value of breeds than many are willing to admit, and less than some breeders of improved races claim. A yearling of the short horn stock, less than 13 months old, was weighed in this city a few days

since and brought down 675 pounds. This heifer which was not fat, is the offspring of Mr. CLAY's importation. Another heifer of the same family weighed 718 lbs. when 15 months old. The mother of the calf first named belongs to the lady with whom the writer boards; and this valuable cow gives some 20 quarts of rich milk a day. There are Devons near here from the herd of L. F. ALLEN, Esq., which are much admired for their beauty.

The Texas Telegraph of May 24, published at Houston, says that wool grown in that State, and sent to New York market has brought $1 25 a fleece this season. Men are buying large flocks in Mexican States, Missouri, Tennessee and elsewhere to drive into the northern parts of Texas. Sheep husbandry is beginning to excite considerable attention at the south and south-west.

Believing as we do, that this Republic is likely to enjoy great prosperity during the next ten years, and receive large accessions to its population and wealth from Europe, the demand for good breeding animals will be steady and at quite remunerating prices.—Whoever will take due pains to improve his cows, sheep, horses and swine, cannot fail to be well paid for his trouble.

LIMESTONE SOILS.

EVERY month's experience and observation increase our esteem of limestone lands. We have studied the growth of wheat and other crops on granitic and sandstone soils, and compared them with the products of lime lands, with which we have long been familiar. The latter not only contain more *lime*, but more potash, soda, magnesia, chlorine, phosphorus and sulphur—more of all the earthy elements of cultivated plants. Having become satisfied that such is the fact, we were for a time at a loss to account for the circumstance that, lime rocks yield other minerals on their disintegration as well as the one that forms the main bulk of this product of nature. The remains of animals with which they abound, that once lived in the ocean, furnish unmistakable evidence that all, or nearly all ordinary lime rocks were slowly built up in the bed of an ancient sea. The same minerals which makes the stoney covering of an oyster, serves under favorable conditions to form many strata of precipitated lime rocks in which to embed the oyter, and a thousand other animals and plants.

These depositions carry down and fix permanently in the growing rock, not only the carbonate of lime, but an appreciable quantity of all the minerals dissolved in the water of the ocean. A moment's reflection will satisfy the reader that this water must abound in all the constituents of vegetables and animals, or they could not flourish in such prodigious numbers in this medium. By analyzing water taken from the ocean, we find that it contains every substance necessary to organize either a whale, a tree, or a man. It abounds in potash, soda, magnesia, iron, chlorine, bone earth, gypsum, and compounds of carbon and azote.

When the bed of the ocean is elevated by volcanic action into islands and continents, and dry land is formed, we find the best soils for the support of terrestrial animals where marine deposits were most abundant. And these vegetable and animal remains are most abundant where sedimentary rocks were slowest in forming. Most sand rocks appear to have been deposited rapidly; for they usually contain little beside mere traces of lime, potash, soda and other minerals dissolved in sea water. Shales, such as may be seen along the terraces above Geneseo in Livingston county, and most limestones appear to have been built up very slowly. There are some fresh water deposits of lime, both ancient and modern, that contain little beside the pure carbonate of that mineral. There are one or two deposits of this character in Cattaraugus county, and one on General HARMON's farm in Wheatland. Prof. PETER of Kentucky, gives the following as the composition of the limestone near Lexington, remarkable for the excellent soil which it forms in that vicinity. He says:

During the past month or two, in my leisure moments, I have submitted to analyses, several specimens of the Kentucky Blue limestone, and have been much gratified to find my anticipations realized in relation to its agricultural value, as will be seen by reference to the results given below.

Specimen No. 1, is of the hard grey limestone; it was dug out of a well in the city of Lexington; it contains geodes lined with brown spar, pearl spar, calc. spar and fluor spar and the usual fossils; its specific gravity is 2.45 in a dry specimen. On analysis, it was found to be composed of the following materials, viz:

Carbonic acid	36.675
Phosphoric acid	1.350
Sulphuric acid	807
Lime	47.046
Magnesia	900
Alumina and oxide of iron	9.880
Fine sand and silicates	1.790
Moisture and loss	1.552
	100.000

Specimen No. 2, from the hard thin layers which are more superficial than the first in this locality, yielded:

Carbonic acid	40.53
Phosphoric acid	36
Sulphuric acid not estimated.	
Lime	50.97
Magnesia	66
Oxide of iron	32
Alumina	15
Sand and silicates	6.52
Moisture and loss	49
	100.00

In addition to these ingredients, potash and soda were obtained from the limestone, whenever the proper processes were employed; in one case as much as 0.9437 per cent of potash; in another, 0.0053 per cent.

The above extract is copied from the May number of the Albany Cultivator. In the June number of the American Agriculturist a gentlemea in Winchester, Va., says that he raised eighty-three bushels of corn per acre, without manure, on a piece of ground which had been irrigated for several years by a "limestone spring."

The rivers Euphrates and Nile, not less than the Genesee in New-York, and the Cumberland in Tennessee, run over lime rocks. These valleys are remarkable for their fertility. On the contrary, all granite regions are characterized by comparative sterility. Granite, unlike sedimentary rocks, have been melted by intense heat deep in the earth, and crystalized on cooling, under great pressure. All this class of rocks decompose slowly, and from comparatively thin, poor soils. They usually lack lime and all the other minerals held in solution by the waters of the ocean. Granitic formations show no signs of organic beings, either animal or vegetable.

The fair inference from the above remarks would seem to be, that salts of lime, potash, soda and magnesia are indispensable to the growth of crops.—Every farmer whose soil lacks lime, should take measures to remedy the defect in the cheapest way possible. In many places gypsum, common salt and wood ashes can be had on such terms as will war-

rant their use for agricultural purposes far more extensively than is now done. The salt which can be obtained by evaporating sea water, will some day be extensively consumed as a fertilizer. Nor will the salts extracted from the soil and wasted in the liquid excretions of domestic animals be always regarded as of so little value.

AGRICULTURAL EDUCATION.

BY AGRICOLA.

The subject which is now attracting much attention, not only in this State, but in many of the States of our Union, is the education of farmers' sons for their profession, that of Agriculture. The prejudice which has too long existed among farmers, and which it must be admitted, has arisen from a wrong idea of the education proposed, is fast giving away to the light which experience is bringing to bear upon this all important matter. No one thinks of preparing his son to be a Physician, Attorney, or Divine, without providing the means for his acquiring a particular knowledge of the studies best calculated to prepare him for the pursuit he is to follow. When we urge the same considerations upon the farmer in regard to the education of his son, for the pursuit of Agriculture, it is not unfrequently said—"What more is necessary than to learn the lad in the field the routine of farm labor—the practices which I have pursued as to the manner of preparing my land—the time of sowing and planting?" This is all important, and we advocate no system of education that will dispense with it. Suppose we should in the case of the physician adopt the same rule. The young man, instead of pursuing a course of study by which he is familiarly and thoroughly instructed in the complicated machinery of the human body, the laws which regulate and govern diseases, the peculiar nature and habits of disease; begins at once to visit patients with the physician, pays no attention to the teachings of science and the researches of others; he might eventually acquire information that would be useful, but how much less likely to be successful, than one who, in addition to this practical education with his instructor at the bedside, had enjoyed the benefits of a thorough education previous to entering upon the active duties of his profession. May it not safely be affirmed, that every man in community would prefer the one who had *combined with practice, the thorough preparation of himself* by all the aids which science and the experience of others had afforded him?

It can be hardly necessary in this day of light and knowledge to attempt to show that there is much for every farmer to learn from science, to aid him in his work. The nature of soils, their constituent elements, their adaptation to particular crops, the quality of manures as determined by analysis, the effect of heat and cold upon vegetation, and many other things which can be only certainly known through the agency of science. What, may it not be asked, is to prevent every farmer who shall be thoroughly instructed from availing himself for practical purposes of these advantages? The researches which have been made by scientific men, have developed many interesting and important facts—and the time is not far distant when many more will be brought to light, which will greatly lessen the labors of the farmer, and enable him with economy to adopt a system of farming that will remunerate him liberally.

Perhaps it may be asked, what system, if adopted here, would thus aid the farmer? Without at this time giving what I suppose would be a system in every respect well calculated to accomplish such a result, it may be sufficient to say—that a school to prepare young men for the duties that are to devolve upon them, should be so arranged as to give them a thorough course of education, combined with its practical adaptation to the entire work of the farm, even in the most minute portions of labor. To accomplish this, a farm of liberal extent must be connected with the institution, where experiments could in the first place be carefully made on some small portion of it, and when satisfactorily tested, be carried into practice in the general culture of the farm. An opportunity must also be furnished of testing the qualities of different breeds of cattle, horses, sheep, and swine. How little is now really known by the great body of our farmers in relation to these matters. Who is there, from actual trial and experiment, is prepared to say which, of all the breeds of cattle, is best adapted to this State, for the Dairy or for the Shambles? Has a trial and comparison been made between the different breeds called *Improved*, and the Native Stock, so that it can be said, *this* is the best for the farmers of New-York? I answer, No.—And I would ask, is it not important that these questions, so important to the farming interest, should be determined? And would not an institution, discreetly managed by a judicious, intelligent and thoroughly qualified practical man, in time work out for us a solution of these questions? So, too, with regard to horses, sheep, and swine—the above remarks are equally applicable.

There are now in this State a large variety of grains in use—each has its advocates—and yet is it not true that it was decided there are some varieties superior to others, and better adapted probably to our climate and soils? And where shall these questions be settled more satisfactorily and certainly than at an institution with a liberal farm, of different varieties of soils, where a series of experiments could be carried on with all the varied grains, for a term sufficient to test their qualities in every respect? There are other matters all important to be ascertained, and which at present are but little attended to, at least so far as the great body of the farmers are concerned. I allude to a rotation of crops, and application of manures, best calculated to give profitable returns to the farmer, while it secures to him the constant fertility of his soil. Where could this be better ascertained than at an institution where a series of experiments with different crops, in different rotations, and with varied manures, carefully analyzed, could be carried out. In each of these cases, time is necessary to obtain satisfactory results—and the State, at an institution of this kind, could secure such results as would in the end greatly add to the prosperity and success of the farmer, in the management of his farm.

Permit me to caution my readers not to expect too much at once from an institution in every respect rightly adapted to the wants of the farmer. Time will be required for it to develop its advantages. The work of improvement is not the work of a day or of a year. Experiments, to be useful, must be long continued, often repeated, before they can be relied upon—and although a young man trained in an institution thoroughly, will himself be prepared to do great good, yet the great practical benefits to the farmer as to the general course of his operations, both as to his crops, manures and animals, must be a work of time—and cannot be hastily decided with safety. Time for experiments to be thoroughly tested, time for the

investigations to be in every respect carefully made, must be allowed. Let this be borne in mind, and I doubt not an institution, under the charge of properly qualified instructors, men of mind, men of practical adaptation to the wants of the age—not mere thorists or fancy men, would eventually secure the approbation of all, and would be crowded with the young men of our State; and would annually send forth many in all respects well qualified to discharge their duties as farmers, and also prepared when called into public life to discharge their higher duties as representatives of their profession, the great producing class of our country.

Should I have leisure, and should you not have more important matter for your paper, I design to pursue this subject, and give in detail the course to be pursued at an institution which, in my judgment, would be well designed to accomplish the great work now needed,—the *Thorough Education of the Sons of Farmers.*

CULTIVATION OF THE MAPLE.

EACH distinct species of trees, like each distinct species of animals, requires to some extent its own appropriate food. Hence a soil that will produce one kind of trees in perfection, will not always produce another. Hence, also, a young tree can hardly be made to flourish where an old one of the same kind has lived and died; because the former took from the soil the elements necessary to the growth of the whole species. (The case of a young shoot growing up from an old root, may be regarded as an exception, because here the nourishment is drawn by an old root that is constantly extending itself into a new soil.) Hence, too, a second growth of timber on the same soil, is almost always different from the first, except as above. To this may be added the fact, that the cultivation of the same kind of grain, on the same field, for several years in succession, impoverishes the soil more than if it had been subjected to a rotation of crops. And hence, again, neither a tree, nor any other vegetable, can be made to thrive in a soil which does not contain the appropriate elements, nor can fruit be raised on an inappropriate soil.

The maple it is well known contains a large amount of potash; and a soil that is destitute of this element, or that contains only a small portion of it, will never produce a thrifty tree, till the deficient element is supplied. I have known many trees to die, or drag out a feeble existence, evidently from no other cause than the want of the proper elements in the soil; and I have also known trees to flourish on an uncongenial soil when supplied with their appropriate food. A few years ago I set out several maple trees, around some of which I threw a quantity of ashes, leaving others without any. The difference in their growth was soon manifest, not only in the amount of growth, but also in the length of time that they continued to grow: the former surpassing the latter in both respects. Hence,

To promote the growth of the maple, (and other trees of a similar nature and under similar circumstances,) *give them potash.* It may be given in the shape of ashes, weak lie, soap-suds, &c., whenever there is evidence of a deficiency in the soil. If proper attention be paid to this subject, I believe we shall much less often have complants of the slow growth of the maple. H.—*Down East, April,* 1849.

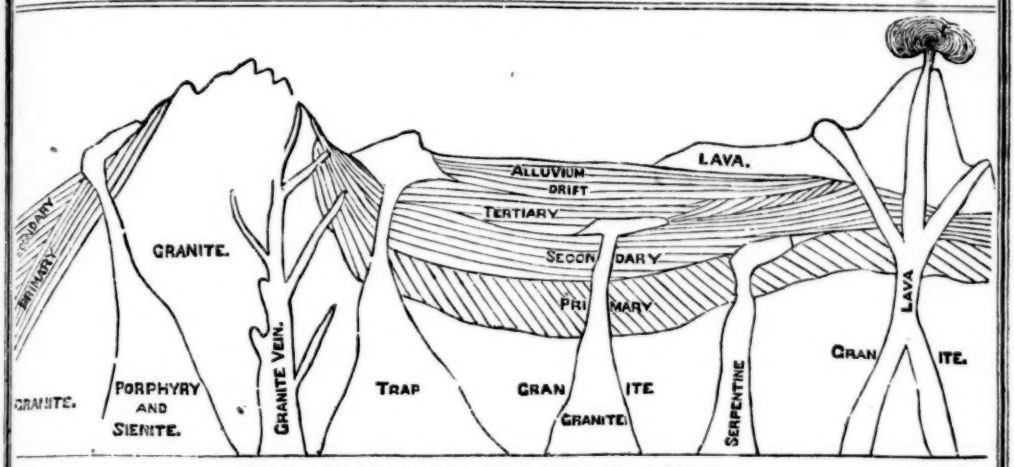
MR. VAIL'S SALE OF SHORT HORN CATTLE.

A PART of the stock of GEORGE VAIL, Esq., of Troy, was offered for sale at public auction, at his farm, near Lansingburgh, on the 13th ult. There was a large attendance of gentlemen at the sale.—Among others, we noticed R. L. Allen, Esq., one of the Editors of the American Agriculturist, and A. Stevens, Esq., of New York city; L. G. Morris, Morrisiania; Hon. A. Van Bergen, Coxsackie; Messrs. Prentice, Tucker, Howard, McIntyre, and B. P. Johnson, Esq., Sec'y State Ag. Society, Albany; Messrs. Kirtland and McCullock, Greenbush; T. Hillhouse, Watervliet; Mr. Ogden, Quebec; Mr. Jean, Lewis Co.; Messrs. Jessup and Drinker, Penn.; Col. D. D. Campbell, Schenectady; Mr. Starkweather, Maine; Gen. Wool, U. S. Army; Gen. J. J. Viele, Troy; Amos Briggs, Esq., Schaghticoke.

Mr. Vail gave, at his cottage lately erected on his farm, a fine collation during the progress of the sale, where every thing was in the best style, and the gentlemen in attendance were highly pleased with the arrangements, and all seemed gratified. The sales were at fair prices, and such as we presume will be deemed encouraging to breeders. We give a list of sales and purchasers, so far as obtained.—There may be one or two omissions. The numbers are from the catalogue :—

COWS AND HEIFERS.	PURCHASERS.	
No. 1.	Sally, red and white, 9 years old,	Mr. Niles, Washington county, N. Y., $110 00
	Her calf, 2 weeks old,	Mr. Percival, Waterville, 37 50
" 2.	Judy 2d, white, 3 y'rs,	Drinker, Jessup & Co., Pennsylvania, 75 00
" 4.	Queen 3d, roan, 4 y'rs. old,	Col. D. D. Campbell, Schenectady, 135 00
" 5.	Countess 18th, roan, 3 years old,	Mr. Jean, Carthage, Jefferson Co., 80 00
	Her calf, Red Lady, No. 17, 2 months old,	Mr. Jean, Carthage, Jefferson co., 25 00
" 6.	Victoria 2d, light roan, 5 years old,	Messrs. Drinker & Co., Pennsylvania, 105 00
" 7.	Fanny 2d, Red and white, 3 years old,	Mr. Jean, Lewis Co., 90 00
" 8.	Ariadne 4th, red and white, 2 years old,	Mr. Burguyn, North Carolina, 105 00
" 9.	Sophia 2d, red and white, 2 years old,	Mr. Burguyn, North Carolina, 105 00
" 13.	Charlotte 2d, principally red, 2 years old,	Mr. Ogden, Quebec, 100 00
" 16.	Queen 5th, roan heifer calf, 2 months old,	Mr. Burguyn, North Carolina, 50 00
	6 heifers were sold to Mr. Starkweather,—at what price, not ascertained.	
	BULLS.	
" 18.	Beppo, white, 3 years old,	Mr. Holton, Vt., 87 50
" 19.	Brutus, red, 2 "	Col. D. D. Campbell, Schenectady, 135 00
" 20.	Belvidere, roan, 1½ year old,	Mr. Remington, Philadelphia, 150 00
" 22.	Victor, white, 2 years old,	Drinker & Co. Pa., 90 00
" 23.	Nimrod, roan, 1½ year old,	Starkweather, 147 50
" 25.	Minor, red and white, 1½,	Harrington, Troy, 60 00
" 26.	Albion, red and white, 1 year old,	T. Hillhouse, Watervliet, 75 00
" 28.	Essex, red and white, 1 year old,	H. R. Burguyn, North Carolina, 80 00
" 29.	Lenox, white, 1 year old,	H. R. Burguyn, 85 00
	White Bull calf,	Mr. Jean, Lewis Co., 30 00

CURE FOR THE BOTTS.—Take a quart of sweet milk; warm it, and sweeten it with sugar or molasses, and give it to the horse. About half an hour afterwards, give a pint of strong brine. The botts, it is said, will eat the former and be distended by it, and the latter will then destroy them. H.



IDEAL SECTION OF THE EARTH'S CRUST.

Agricultural Geology.

The well-informed farmer should have some knowledge of the science of *Geology*. Without it, he can have no correct ideas as to the origin and peculiarities of soils in different localities; and of their natural adaptation to certain crops, and lack of adaptation to others. In connection with this article, the reader will see an ideal section of the earth's crust, from its surface down to the region whence melted minerals are forced up by a mechanical power, too large for circulation.

Rocks are best studied under two general heads: First, Those that were melted by heat, and cooled to attain the form in which we see them. These are denominated *Igneous Rocks*, from the Latin word *ignis*, "fire," because fire was an active agent in bringing the matter that forms such rocks into the peculiar conditions in which they appear. Second, Those that were deposited like sediments in water, compressed and consolidated by great weight into hard masses. Such are called *Aqueous rocks* from *aqua*, "water," and also *Sedimentary* rocks.

Among the igneous rocks, *granite* is generally the lowest in the earth, and by far the most abundant.—In the section which we have given granite, will be seen to underlie the several formations denominated *Primary, Secondary, Tertiary, Drift, Alluvium* and *Lava*. The latter coming from an active volcano is presumed to run down its cone and cover the highest aqueous deposite, whether it be the alluvium of a river, or other recent deposition from water. It is a singular fact that some of the best soils in the world are formed of the debris of lava, which was devoid of all organic matter, and brought up thousands of feet from Nature's mighty furnace, whose fire burns on from century to century with undiminished intensity. Taking the hint from dame Nature, agricultural chemists have burnt granite till it would crumble into powder when treated with a dash of cold water, and finally give up to growing plants its fertilizing elements.

Rocks formed by ancient volcanoes are called "*Trap*," as will be seen in the drawing. The word trap is derived from *trappa*, which means a stair or step. Greenstone and basalt belong to the trap family.

Melted matter injected into fissures in mountain masses of granitic and sedimentary rocks appears as veins of granite, serpentine, porphyry, syenite and other minerals. Syenite differs from granite in having horneblende take the place of mica. The last named mineral is called isinglass in some sections of country. Granite is composed of the three well known minerals, quartz, felspar and mica. Porphyry is distinguished by its large crystals of felspar.—There are several varieties of this famous classic rock. *Serpentine* contains about 40 per cent of magnesia. It is essentially a silicate of that base.—Among the Primary rocks *gneiss* is the most important. It is simply stratified granite—the consolidated debris (fragments) of the parent unstratified rock. When granite is decomposed, as well as disintegrated, sand, shale and slate rocks are produced—the former from quartz and the latter from felspar and mica. Primary lime-stone is also formed from the decomposition of crystaline rocks which contain that mineral.

Secondary rocks are a numerous family. They are conveniently divided into five systems; all of which abound in the well preserved remains of extinct races of animals. The lowest in the catalogue is the *Silurian* system. Above this is the Coal-bearing system; then the Salt-bearing; Oolitic, and Chalk systems. These, when entire, are several thousand feet in thickness.

Tertiary strata are divided by Lyell into four groups, to which he gives the names of *Eocene, Miocene, Older* and *Newer Pliocene*. These terms, derived from the Greek, we will not stop to define.

Above the tertiary strata lie the Drift, which is the same as the diluvium of some geologists. It is the loose earthy matter above all solid rocks, as it was left at the time when islands and continents were last elevated by volcanic action above the surface of the ocean. So far as rains, snows, creeks, rivers, and lakes, have transported this moveable earthy matter, or the debris of exposed rocks, and deposited it in new layers, since dry land appeared as we now see, these latest deposits or strata are called *alluvial* beds, or *alluvium*. Such strata abound in the remains of plants and animals now living on the continent. The alluvial and drift formations are most worthy of the attention of practical farmers.

THE HORSE.—IMPROVEMENT IN BREEDING.

ALTHOUGH the improvement in the modes of traveling, resulting from the application of steam, may in many sections of our country, diminish the use and the value of fine horses, still the horse will always be of incalculable importance to us. Any thing therefore, that may tend to enhance his worth, by improving his character, will be thought useful.

The intrinsic value of the horse, consists in his *power, speed,* and *endurance.* And as he is, to a great extent, the subject of taste and fancy, his highest value is attained, when he unites beauty of form, with these three requisites. But every farmer knows, he is not to expect the pear from the thorn bush, nor the pippin from the wild crab apple. But then these stocks will produce the pear and the pippin, if such scions are introduced. Since, then, the same expense of care, culture, feed, and time, is needed to sustain and rear a four years old horse worth $60, and one worth $100, is it not astonishing that farmers, who spare no expense to obtain the best quality of grains, grasses, and roots for seed, should still employ as sires, the low bred dung-hill at twenty shillings, instead of the brave and noble blood horse worth twenty dollars. The result in such case, as a general rule, must necessarily be, the colt will be a twenty shilling colt, instead of a twenty dollar colt, if nature proves true to her principles.

Many farmers do not reflect sufficiently, or judge correctly on this subject. They seem to think, a half blood sire, derived from a blood horse and *common dam,* may produce as fine stock, as the full blood horse himself; whereas, *he cannot half so good.* Being only a half blood himself, he can infuse into his progeny only one fourth of the good qualities of his sire. His stock is only quarter bloods. No farmer, desirous of making the greatest gain in perfecting his stock, will use any horse as a sire, who cannot claim to inherit, in the line of his dam, as well as of his sire, *Power, Speed,* and *Endurance;* the three items which give value to the horse. Hence it is, that the pedigree of our blood horses is given in the line of the dam, instead of the sire. It is to show, that the valuable blood of the horse, derived from his sire, is not deteriorated by any impure, low blood, derived from the mother. A little reflection therefore, will satisfy the farmer, not to breed from a horse, (although his sire may have been good,) in the hope of greatly improving his stock, if he cannot claim excellence also, from the blood of his dam, as well as of his sire. In this particular, American Eclipse excelled any horse of his day; and to this source was he indebted, in a great degree, for his matchless powers. His dam was got by "Messenger," whose stock, for power and endurance, has proved equal, and often superior, to that of any horse ever brought to this country. Her dam, by a son of "English Eclipse;" next to "Childers," the fleetest horse ever known. His sire, "Duroc," was by "Diomed;" the best horse of his day—deriving his excellence from judicious crosses, blending the best strains of English and Arabian blood.

It is perfectly idle for a farmer, who has a mare of good size, of fine qualities and blood, to raise a colt from a common horse worth only $65 to $80, at four years old; when he can, with the same expense of care and feed, rear one worth $120 to $150, by resorting to a better sire, at a cost of a few dollars more. And even if his mare is in some respects inferior, he should still resort to horses of high and celebrated blood,—of large size, just proportions, and fine speed,—horses, superior in those very particulars in which his mare is deficient. A half blood filly from such a cross, would probably make a valuable stock mare, producing colts of great worth, if bred from the superior blood horse.

Every farmer should have one or two good brood mares. We have the experience and testimony of intelligent men, that brood mares may be steadily and safely used until within a few days of foaling; and very soon after. They should not be improperly used and abused, by extreme, sudden, violent efforts. But it will not injure them nor their foals, to do constant, reasonable labor. In addition therefore, to accomplishing the ordinary service of a span of horses on the farm, they may produce the farmer annually, a pair of colts.

It should here be remarked, that much of the value of our colts depends on the care and keeping we give them. We err greatly on this point. Colts generally, are neglected the first winter. Their growth is retarded, and their forms are injured thereby.—They should be kept in the best manner, the first year; should be kept constantly thriving. Their forms will then be properly sustained, and their points and proportions be finely developed. Nor should they be fed on the ground, but in racks so posited, as to require them to extend and elevate the neck and head.

Dutchess County, in this State, has derived a large revenue for half a century, from the sale of her valuable horses. Spans of horses bred there, have been sold in New York, from five hundred to one thousand dollars.—And multitudes of single horses from fifty pounds, to one hundred pounds each. They secured these results at an early period, by perfecting their stock of brood mares, in the use of such imported horses as Messenger, Highlander, Paymaster, Drone, Badjazette, and others; not hesitating to pay $20 or more, to horses of such character and blood.

As "like produces like," the brave and noble blood horse is expected to give the index of his character to his progeny. To decide whether he has "power, speed, and endurance," he is put to trial on the race course. In a greater or less degree, his *courage, resolution, temper* and *constitution,* as well as his form and proportions, are imparted to his stock.—The farmer who would make gain by breeding colts, should look to these things. His colts will always sell, if they have size and speed, even if less perfect and beautiful in form. By blending the Arabian blood, with that of the English race horse, the product has been considered, as having attained the highest degree of perfection. It has united to the size and bone of the English race horse, the round, smooth, beautiful form of the Arabian, together with his hardiness, fleetness, and ability to endure fatigue. By such crosses, the fleetest and best horses have been produced, that have been ever known. And in the use of such horses can our stock be soon perfected; but it cannot be done, by a resort to low bred horses, who have no blood on the side of the dam, and who are removed to the third and fourth cross, from the pure blood sire.

There are two leading purposes for which we rear colts. One is for the plow, and one for the road. For the plow, stout, heavy, compact built horses are needed, with no special regard to fleetness. For the road, as for stages, pleasure carriages and the saddle, in

addition to size, power, and form, *high courage*, and *fleetness or speed*, are indispensable. If the farmer therefore, designs to rear a colt for market, he must resort to a sire either celebrated himself, or, in the line of his immediate ancestry, for fine action, and great speed as roadsters; in the hope that he will impart thes properties to his stock. If for the plow, he will look for a sire possessing a kind, docile, gentle temper; of good size, large bone, and great muscular powers. As the stock will be, in a good measure, characterised by the sire, he will look for such qualities in the sire, as are especially adapted to the uses and purposes he has in view. If these few hints should influence the farmer to reflect on this subject, and be the means of inducing correct impressions, my purpose will have been answered.

Rochester, N. Y., June, 1849. L.

HEAVY FLEECES, AND HOW OBTAINED.

Eds. Genesee Farmer:—I have just sheared my sheep this year, twelve in number. *The twelve sheared eighty-five pounds and four ounces.* The weight of the sheep after shorn, together with the weight of their fleeces, I send you.

Weight of Sheep.	Fleece		Weight of Sheep.	Fleece.	
No. A, 87 lbs.	5 lbs.	15 oz	No. G, 98 lbs.	6 lbs.	9 oz.
" B,* 79	7	5	" H.* 73	6	11
" C, 121	10	10	" I, 87	5	5
" D, 87	5	12	" J, 88	5	11
" E, 84	5	8	" K* 87	5	14
" F,* 79	7	0	" L, 160	13	0

The whole weight of the sheep was 1,030 lbs.; which would be an average of one pound of wool, to every twelve and a half pounds live weight of the sheep. The wool was not *cleaned* of course, but was *well washed* on the sheep before being shorn. The average weight of their fleeces would be 7 lbs. 1¾ oz. C. was a yearling buck, and L. a two year buck. Those marked *, yearling ewes, each of which has raised her lamb. The remainder were ewes, each of which raised her lamb this season. All but the yearlings were sheared last year. Thus from twelve sheep, I have 85 lbs. of good marketable wool, and ten good lambs. Seven of the above were Paular Merinoes, including the two bucks, and the remainder about half bloods. The sire of most of the above sheep was from Col. Randalls' flock of Cortland Co., owned by R. D. Palmer, Esq., of this place.

If any one wishes to know how I raised my sheep to such heavy fleeces, I would say: in the first place, I keep but few, and keep them well; and secondly, I select those that shear the heaviest fleeces every year, for myself. When I commenced, my flock would not average four pounds. But by the use of the before mentioned sire, and the purchase of a few ewes, (which would not shear five pounds each,) and always selecting the heaveist shearers for my own use, they now average over 7 lbs. I believe I can get much heavier fleeces yet. You will see my yearlings shear heavier in proportion than the older ones. One yearling ewe 7 lbs. 5 oz., which is the heaviest I have ever had, and another 7 lbs. These sheep had good pasture last summer, and in the winter good hay and two quarts of oats per day. S. P. Chapman.—*Clockville, Madison Co., June*, 1849.

The Mountains of Segar, in Arabia, produce frankincense; and those of Safra the balm of Mecca, from the amyris opo-balsamum, which in the early ages sold for its weight in gold.

LIME AS A MANURE.

The following remarks on the action of Lime, and its application to the soil, are worthy the attention of practical farmers. They are extracted from an Address before the Yates Co. Agricultural Society, by John Delafield, Esq.:—

"Lime exists in plants in various proportions, viz: 32 per cent of the ashes of oakwood is lime; 27 per cent of the ashes of poplar is lime; 14 per cent. of the ashes of peas is lime; and 4 per cent. of the ashes of our wheat plant is lime. Lime is an essential constituent of wheat. It *must*, therefore, be in our soils, or our wheat never can be matured. Lime, therefore, is a *direct food* for wheat, and so also for other plants. This important element of our soil possesses several qualities most essentially and highly beneficial to the farmer. For instance, where applied to heavy clay soils, it renders them more open and easily worked, admitting the action of the atmosphere.

In all soils containing the sulphate of iron, lime will decompose the sulphate of iron, and thereby form plaster of paris, a material well known. When we apply lime in its fresh or caustic state it acts as a solvent, destroys the texture of matter in contact with it, or changes its nature. But when by exposure to the air this power is lost and it becomes slacked, then it is food direct for plants.

Now as to the best method of using lime, farmers are not agreed; and with some hesitation, I will state my practice and give my reasons. We see and know that twenty bushels of wheat, if produced from a single acre, will take from that acre about *seven* pounds of lime; then, as a bushel of lime weighs about seventy-two pounds in a caustic state, it will weigh, when slacked, about 100 pounds by the absorption of water; therefore, *one bushel* of lime is sufficient for *fourteen acres* of wheat or thereabouts; but as this supply is for one crop only, and as weeds and other vegetation will rob the wheat of its due share, I would apply ten bushels to the acre, and feel that it is sufficient for four or five years.

It is true that farmers in this country have applied from 60 to 200 bushels per acre, and there may occasionally be a farm where such a dose may do good, but more likely to do harm; at any rate, for the reasons above stated, it seems a wasteful and expensive system. For light soils, I would recommend a mixture of lime and muck—say one bushel of lime to a cubic yard of muck—applying 20 to 25 bushels of this mixture to an acre. But never mix lime with your manure heaps; this is a ruinous practice, because it expels from your manure its chief power; it destroys the ammonia, a salt which it is our aim to preserve."

Hens eating their Eggs.—In addition to the directions given on this subject in the April number of the Farmer, allow me to add, "Give them animal food." They require animal food as well as lime. Give them scraps, offal, fish (not salted,) &c. They will eat no more than they need. It would be well if hens that are confined in a pen, or small yard, could be let out each day an hour or two before sunset, that they may pick up bugs, worms, grass-hoppers, &c. Dig up the soil in their yard and let them scratch in it. H.

Idustry.—"There is more pleasure in sweating an hour than in yawning a century."

HEDGE FENCES.

MESSRS. EDITORS:—I noticed in your June number a communication headed, "Hedges *vs.* Wire Fences," in regard to which you remarked that you would like to hear from other correspondents on this subject. The writer recommends the use of Italian Privet, Arbor Vitæ, and Red Cedar, for fences. The Privet, &c., will make an ornamental hedge around lawns, as a division for gardens, &c., but the man who plants Italian Privet, or Red Cedar, or Arbor Vitæ, as a hedge to protect his fields or garden from the inroads of cattle, will learn wisdom from his sad experience, and the cattle will have the benefit of his blunder.

In another article a correspondent talks of "*the sections where live fences are a forlorn hope, owing to their destruction by mice.*" Now, I know of no such place, and if there is such an one, it must be in the "*regions of perpetual snow,*" or some other outlandish "*region.*" I believe that, in any place where trees and shrubs grow, native shrubs can be found that will make good protective Hedges. In England more than a score are used for hedging—all perhaps intermixed in the same hedge. The Alder, the Elder, the White and Black Thorn, the Bramble, and many others I have often noticed in the same hedge. In our country, so extensive, and consequently presenting such a variety of soil and climate, plants must be used suitable to the locality; and I believe, when proper attention is given to the subject, each section will furnish its own hedge plants in abundance. The editor of the Southern Cultivator says that in Georgia the Cherokee Rose makes a hedge that is a sure protection against the inroads of man and beast. The *Norway Spruce* will make a good protective hedge, and the mice never trouble evergreens.

Now, I will give you my model for a beautiful protective hedge. Plant the Norway Spruce, say three feet apart, and between each plant a Prairie or some other free-growing running rose, and I will warrant a hedge that, for strength, beauty and durability, will be unequaled by any *wire* or *rail* fence. Any attempts to go through or over it, will be truly a "forlorn hope." More anon. RUSTIC.—*Rose Lawn, N. Y., June,* 1849.

FEEDING AND MANAGING MILCH COWS.

THE grasses, particularly the clovers, are the best summer food. When these begin to fail, the deficiency may be supplied by green corn, which is very sweet, and produces a large quantity of milk, of excellent quality. The tops of beets, carrots, parsnips, and cabbage and turnip leaves, are good. Pumpkins, apples, and roots, may be given as the feed fails.—Give only a few at first, especially apples, and gradually increase.

Roots are of great importance when cows are kept on dry fodder. Potatoes, carrots, beets, turnips, parsnips, artichokes, and vegetable oysters, are good.—The last three and cabbage and turnips keep good in the ground through the winter, and are fresh and fine in the spring, before the grass starts.

Potatoes produce a great flow of milk, but it is not very rich. A little Indian meal is good with them, to keep up the flesh and give richness to the milk; and this is the case with beets and most kinds of turnips, as they tend largely to milk. A little oil meal or flaxseed is excellent, in addition to the Indian meal, to keep up a fine, healthy condition, and impart a rich quality to the milk, and gives a lively gloss to the hair of cattle, and softness and pliancy to the skin.

In all cases of high feeding in winter, particularly when cows have but few roots, shorts or bran are excellent to promote digestion and keep the bowels open. Three pints each of oil and Indian meal, or two quarts of one and one quart of the other, is as high feed in these articles, as cows should ever have. On shorts, bran and roots, they may be fed liberally. Four quarts of Indian meal, in a long run, will dry up and spoil the best cows, so that they will never recover.

Carrots are among the very best roots for milch cows, producing a good but not very great mess of rich milk, and keeping the cow in good health.—Parsnips are nearly the same. Ruta-bagas are rather rich, and keep up the condition. To prevent any unpleasant taste in the milk from feeding turnips, use salt freely on them, and milk night and morning before feeding with turnips. Cabbage turnip, (or turnip-rooted-cabbage-below-ground,) has no such effect. It resembles ruta-baga, is raised in the same way, and yields as much or more.

Some keep cows in the barn, by night, in the warm season. They are saved from storms, and more manure is saved. There should be good ventilation in hot weather. Cows are much better for being kept in the barn nearly all the time in cold weather. To drink freely of cold water, and then stand half chilled to death, is highly injurious. But they should go out a little while daily, in favorable weather, and be driven around gently, for exercise. Inaction is death to all the animal race.

Cows and other cattle are badly managed. They are not *watered,* in short days, until ten o'clock in the morning and their last chance for drinking is about four in the evening. Thus they go sixteen hours without drink, and during that time they take nearly all their food, which is as dry as husk. They suffer to a great degree from thirst, and then drink to excess. As a remedy, give cattle a part of their breakfast, and then water them, and water again after finishing their morning meal; and if kept up, water at noon, and at night. If it be too much trouble to take good care of stock, then keep less, and they will be as productive and more profitable, if well managed. We have fed sheep that had constant access to water within eight or nine rods, and after eating thirty or forty minutes in the morning, they would all go and drink.

Milch cows are injured by being driven far to pasture, especially in hot weather, and still more if hurried by thoughtless boys. — [*Cole's American Veterinarian.*

CURE FOR THE HEAVES.—Not long since, in conversation with a gentleman who was driving a fine horse, he informed me that his horse had recently been cured of the heaves, (with which he had been severely afflicted,) in the following manner: He took a quantity of rye bran, five or six quarts at first, increasing gradually to a peck, wet or moistened it with warm water, and gave it to his horse. He continued this for a few weeks, increasing the temperature of the water each day, till in a short time he applied it *boiling hot.* The horse improved in condition, and was soon entirely cured. H.

WISCONSIN has an area of 31,511,360 acres, and a population not exceeding 300,000 persons.

CHEESE FACTORIES IN ASHTABULA CO., OHIO.

The editor of the Conneaut Reporter has been out rusticating, and gives some interesting items touching dairy operations in that section. He says such is the large and growing demand for cheese and butter, that where a few years ago two or three cows only were kept, the same occupants now number their 40, 50, and 60 cows—and at this time there is an increase of quite one-half over the number last year. It appears from the editor's statement that a new system of cheese-making has been successfully established, consisting of "Cheese Factories," as they are termed. He thus speaks of two of them now in operation in the midst of the heavy dairies:—

C. C. Wick, Esq., of Wayne, one of our most enterprising and business men, has recently erected his buildings and put in operation his "dairy," for the manufacture of cheese. He commands the product of 1,100 cows, owned in that and adjacent townships, and employs men and teams, who every morning take prescribed routes varying from five to ten miles each, and gather the "curds," which are neatly sacked by the dairymen, and then brought to the factory, where the process of "cheese making" is completed.

This furnishes employ for a large number of men and women, and by the aid of recent improvements and machinery, much of the labor requisite is rendered light, more convenient and simple than the usual mode. He had last week about 3,000 cheese on hand, made within about thirty days, and for beauty and fine flavor, they are not to be excelled. The weight of "curds" daily received, amount in the aggregate to some 3,500 lbs., and the number of cheese made daily about 75, varying somewhat as regards size. They are put up in sacks, and intended for the English, West India, and California trades, and vary from 15 to 35 lbs—the former, we believe are intended exclusively for the California market.—Wayne has long held a reputation for producing cheese equal to any other township, and friend Wick intends that the products of *his* dairy shall bear impress of being equal if not superior to any that have been sent from this country. In addition to this there are many large and fine dairies among the farmers. At Richmond, Merriman Barber, Esq., has another "Factory," and situated so as to command the daries of that town, Dorset, Andover, and a portion of Cherry Valley. He receives the products of about the same number of cows, and makes about the same weight of cheese daily, and carried on in the same manner of Wicks, but his cheese are more uniform in size, averaging 26 or 27 lbs., each—are put up in the best possible manner, and will command the highest rates in the home or foreign market.

By the adoption of this system, it is made advantageous to the farmers, as they contract in the spring for their "curds," which continues for the season, and are thus enabled to estimate very nearly their amount of resources, without reference to a fluctuating market. The prices paid for curds the present season is 3¼ cents per pound, deducting therefrom the expense of teams for gathering, which receive a stipulated sum.

True glory consists in doing what deserves to be written—writing what deserves to be read, and making the world happier and better for having lived in it.

PEAS AND PEA BUGS.

H. Y., in the March number of the Farmer, says: "We would like to know what advantage A. H. promises himself by keeping peas corked in a bottle for two years. The objection to sowing buggy peas is not that they are distributed in the field, as the number must be utterly insignificant, but that the bug destroys the germ," &c. To this I reply that in my article in the February number, I had sowing peas in the *garden* in my mind, and not field peas—and that I do not recognize the truth of H. Y's assertion that the number must be "utterly insignificant." If sown early it is nearly equal to one bug to a pea, and if it is worth while to get rid of one curculio with a plum, it is worth while to get rid of one bug to a pea. I am not sufficiently acquainted with the natural history of the pea bug to know if it is propagated in any other way—if not, by destroying the entire brood for a year, we would diminish the number, and by a series of experiments would get rid of the evil. It would of course require more seed to be sown of the peas kept for the first two years, for the bugs would have destroyed some of the germs; but no bugs would be resown for future multiplication, and instead of the pea bug spreading from the garden to the field, if *all* would try the remedy, in a few years we should have peas without bugs, as they were formerly.

I last year sowed three kinds of peas, to determine which was the earliest variety. They were the Prince Albert, Landreth's Extra Early, and the June Peas. They were all sown on the 28th of March. The first two were gathered for the table on the fifteenth June, and the last on the twenty-third June. The Prince Albert appeared to be about one day earlier than the Extra Early; but the Extra Early is the largest, and of the two I should think the best variety for general culture.

This year I sowed on the 31st March two rows of Extra Early peas side by side, the seed in one being taken from the largest and earliest pods of last year's crop, and the seed of the other from peas taken when the vines were pulled up at the close of the season. The difference is very manifest, the vines of the first row being, at this time, full three inches higher than those in the second.

Meadville, Pa., May, 1849. A. H.

The two Systems of Farming.—Under a low standard of agriculture, the object of the farmer is to collect the natural produce of the soil with the expenditure of as little money or labor as possible. But under a high standard he does not grudge expense of labor nor of manure, in order to obtain a proportionate increase of produce; and he studies to obtain this by cultivating crops congenial to the soil by growing them in such order that its natural powers shall be turned to the best advantage.—*Selected.*

The Earth is the great nursing mother of all plants; they in their turn minister, directly or indirectly, to the nutrition and sustenance of animal life; the lamb and the kid feed upon herbage, the direct growth of the soil; the wolf and other of the carnivora feed upon the lamb and the kid—thus they derive their food indirectly from the soil.

The deeper the soil is made, the deeper the roots can go in search of food.

LIGHTNING-RODS OR CONDUCTORS.

BY L. WETHERELL.

THERE are few persons upon whom a thunder shower, when passing directly over them, does not make an impression; and some there are who suffer most intensely from fear. This fear is not without cause; for many persons, every warm season over our country, are killed by lightning. VOLNEY reports that there were in the United States, in 1797, from the month of June to the 28th of August, 24 persons struck by lightning, of whom 17 were killed. In France, in 1819, 20 persons were killed by the same cause. That there is danger then, none can deny. And the instinctive dread which man has of death, is a sufficient cause for the fear and suffering which are excited in many persons, by a thunder shower.

From the fact that many lives and much property are destroyed annually by the agency of electricity, or lightning, for these are but different names for the same powerful agent, the inquiry arises in every thinking mind, is there any way to avert this danger? because, if there be, common prudence and forethought would seem to dictate its immediate application for the preservation and security of both life and property. From the discovery of the facts by experimenters with electricity, that certain substances repel, ward off, or are non-conductors of the electric fluid, while others attract it, and are called good conductors, Dr. FRANKLIN was led to invent the lightning rod, or conductor.

This rod or conductor is usually made of wrought iron, though copper is better, because less liable to rust or melt, and is, also, a better conductor. The rod should be three-fourths of an inch, or an inch in diameter; its extremity extending above the building into the air should be finely pointed, and gilded with some metal that does not rust; and no interruption must occur from the point to the lower extremity extending into the earth. M. GAY-LUSSAC, under the auspices of the French Academy of Sciences, has presented the following instructions:—"The rod of the lightning-conductor is about 27 feet in length: it is composed of three pieces, namely, an iron rod 25½ feet in length, a brass rod of 18 inches, and a platinum needle 2 inches long: taken together they form a figure resembling a cone.—(The length must be greater or less according to the height of the building.) The platinum needle or point is soldered to the brass rod with silver, and the place of junction surrounded by a covering of copper.

The brass rod is screwed into the iron rod, and secured by transverse pins. The iron rod is often composed of two pieces in order to facilitate its transportation; one of these fastens into the other by means of a long conical projection, 7 inches in length, which is secured by a transverse pin."

Much depends upon a good connection of the rod with the earth, after it has been properly fastened or attached to the building. It should terminate in a well, or moist earth, where the rod should be divided into several branches. The part of the rod in the earth should be covered with charcoal, which is also a good conductor. It is best to connect with water when it can be done.

Experience teaches that a lightning-rod such as has been here described, protects around it to a distance equal to twice its height; or for example: when the rod is 5 feet above the roof it protects a circle whose diameter is 20 feet, or ten feet in all directions: so if the building be large, more than one conductor will be necessary to furnish protection.—The experience and observation of more than 60 years show, that, when the rods or conductors are made and put up in accordance with the direction here furnished, which is not the speculation of some abstract theorist, but truth as discovered by observation and confirmed by experiment, they will furnish ample security and protection for both life and property against the effects and perils of lightning.

ARAGO, a French philosopher, says, that it is highly probable that a *silent* and gradual discharge of a thunder-cloud is often effected by the points of lightning-rods, and thus an explosion is prevented.—He further states, that "*lightning-rods not only render the strokes of lightning inoffensive, but considerably diminish the chance of the building being struck at all.*" So it seems that the conductor so facilitates the passage of electricity between the cloud and the earth, that a discharge is much less likely to occur over a building thus furnished—but admitting that it does, the conductor renders the stroke "inoffensive."

The farmers of Massachusetts, and especially of Worcester county, called the back-bone of the Bay State, have many of them provided lightning-rods for both their barns and their houses. Many more barns than houses are annually destroyed by lightning.

Lightning-conductors furnish the very best and cheapest insurance against the perils of lightning. How much wiser and better is the policy pursued by the man who provides for the security of both life and property against the effects of lightning, than that of him who provides for the latter only, by shifting the hazard to an insurance company; so that, though he be killed by the stroke of lightning which might have been averted by a conductor which would have cost less than his insurance policy, yet his friends have the consolation of knowing, that his forecast has secured for them a sum sufficient to repair all damages done to the building by the stroke.

Will not farmers and others consider the expediency, where they have not already done it, of providing lightning-conductors immediately for their buildings, and so secure and preserve both life and property from the effects of one of the most fearful, terrific and powerful agents of this nether world?

PLOWING.—SAW-DUST AS A MANURE.

MESSRS. EDITORS:—Under the above head I wish to state a few facts, and make a few suggestions. There is one thing necessary in all grain growing countries to ensure a good crop—that there should be good plowing. The first requisite to gain this end is to have good teams; (and, by the way, it is not so expensive keeping a good team as it is a poor one.) And the second is to have a good plow, and have it well rigged, with wheel, colter, and all. When the plow is taken into the field and tried, the plowman should measure with his eye the width of the furrow, and also the lap the plow will turn, and do it well. Then he should keep it in that position as to width, and hold steady and firm, and he will thereby make a straight furrow, and the land will be even and nice. The furrows should not be less than six inches deep for spring grain, nor less than eight for winter grain. I have heard many farmers make the assertion that it would not do to plow deep always, but that it would

do once in a long time. I think they are in an error. For certainly if we plow only four inches we have only four inches of soil for our crops to grow in; while, if we plow eight inches deep, we have eight inches of soil loosened for the crop, and there is no doubt but the crop would be benefitted in proportion to the depth of the plowing.

There is another error I think farmers labor under—that is of throwing up their ground into narrow lands from three to six paces wide. The best way, in my experience, is to keep the land as level as possible; and in order to do this the lands should not be less than twelve or eighteen paces. The ground will thereby be kept level and smooth, and the grain will grow evenly over the whole surface.

But methinks I hear the farmer say, "What shall I do to keep the water off my level land, if I do not throw it up narrow?" I will tell you. Plow your ground into lands of twelve paces, and after the seed is dragged in, clean out the dead furrows—and then draw furrows at right angles with the dead furrows, the same distance apart as the dead furrows are, and you have a square of twelve paces, or about thirty-six feet. And if the main ditch and the corners of the others are well cleaned out with the shovel or hoe, I will insure you against any loss by water standing on your wheat Try it, brother farmers, and I am sure you will like the plan.

Now, Mr. Editor, I wish to make an inquiry as to your opinion whether saw dust strown on to land and plowed in would be of any benefit. We have a saw mill on our place, and considerable saw dust has accumulated around and under it, and I think of drawing a quantity of it and plowing into a summer fallow; but if you think it will not be of any material benefit, I shall not do it. Last winter I drew several loads of it, together with several loads of forest leaves, into the barnyard for the purpose of trying to make manure of them. Since I have taken the Genesee Farmer, I have come to the conclusion that manure is the true philosopher's stone—it turns all to gold it touches. FARMER OF NIAGARA.—*Pekin, New York, May*, 1849.

REMARKS.—We suppose that saw dust possesses as much value as any other vegetable matter, even the dung of animals after it is leached of its soluble salts. It is the material that forms *humus*, which is the bread and meat of plants. Its action is not immediate, except so far as it renders compact clayey soils porous, and pervious to air and water. After it has gone through a species of carbonizing process, it becomes *humus*, the material that changes the color and darkens all virgin and rich antripical soils. It cannot fail of enriching any kind of soil, particularly if the saw dust is from the hard woods. Pine, hemlock, and the whole fir family would have a deleterious effect, unless long composted, and the resinous quality destroyed by lime or natural decomposition.

WIND MILLS.—In your May number, page 109, I find an inquiry about Wind Wheels. If your correspondent in Van Buren will take the pains to inquire of Mr. TRUMAN KIDDER, of Warren, Warren co., Pa., he will obtain all the information he wishes, and find exactly the wheel he wants. SUBSCRIBER.—*Warren, Pa.*, 1849.

WHY not furnish us a brief description, price, &c., for publication in the Farmer?—ED.

NOTES FROM A WISCONSIN FARMER.

MESSRS. EDITORS:—After wishing you the success a valuable work merits, I will jot down a few rambling thoughts.

I would merely hint to Dr. HOYT that I think him ahead of the times about the potato rot. Were his statements correct a preventive is at hand, as it might undoubtedly be effected by dressing the soil or vines with lime or ashes; for I have found the application of them sufficient to expel every kind of worm from the soil and crop. A half acre near the house, I supplied so liberally that an insect is rarely seen on it; and as evidence of this, neither hen or bird attempt to find them, even when newly plowed. Yet, even in this ground, the potatoes rot; and though the worm described is found in the corn fields and elsewhere, I have not been able to detect it or any other insect in the potato vines—although I have examined them for three years past, commencing as soon as I could see they were affected, and looking often until cold weather, splitting the vines, &c. They rotted three times as much on ground plowed ten or twelve inches, as where plowed not more than six.

Speaking of plowing leads me to another topic.—I do not know but our western land may ultimately need deep tilling; at present it appears not beneficial. I know not whether we have any land that, with the best management, would produce such a crop of corn as stated by Mr. SHELDON. I have fifty acres that will produce from seventy to ninety bushels per acre, by plowing from six to eight inches deep, and hoeing, (without manuring or harrowing,) which I would like to let some of the Genesee farmers have, that they might cultivate it thoroughly and see if it would not produce as much as heart could wish, of corn, wheat or root crops. The latter, with half cultivation, are produced in astonishing quantities.

I have a little native cow that has been kept out at the stack all winter, which will give as much milk and of as good quality as any Durham of her weight; but the art of obtaining as much butter or cheese therefrom, as we read in the Farmer that some have done, I am confident we do not possess.

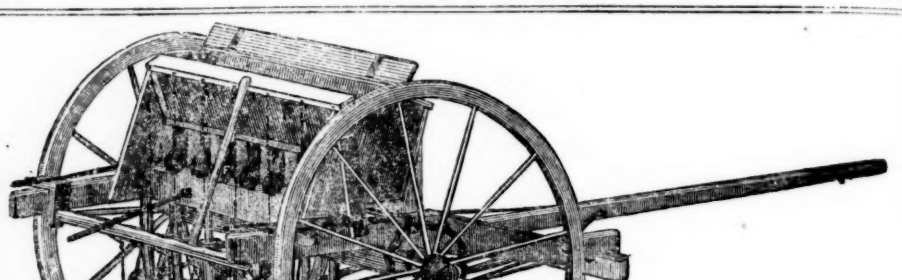
I am told that one man, a few miles from here, has commenced building wire fence, and finds it very expensive. We cannot go into it here so long as the merchants make us pay twenty-five cents per lb. for wire—and its utility and durability are doubted.

Our friend's views on "keeping the swinish multitude at home" are to the point. I intend to show the article to a well off Pennsylvania farmer, who keeps a large herd of swine and pastures them wholly in the road, in hopes that he will take the hint. That *Van* may be a decent man, aside from his politics.

The Horticultural Department of the Farmer we all much need in this section. It contains the most information on the subject of any journal that I have been privileged with reading.

Though perhaps more applicable to the farmers of New York and New England, (who farm it on a smaller scale than us westerners,) I feel disposed to continue the Farmer for the satisfaction of reading it; and learning what improvements are being made; also learning the views of many different and distant persons on various, and some very important subjects.

You perceive that I cannot write like some of your friends; but what I have written is in whole, part or none, at your service, as our Van Buren friend says. SMITH.—*Spring Prairie, Wis., May*, 1849.



SEYMOUR'S DRILL AND BROADCAST SOWING MACHINE.

MESSRS. EDITORS :—There is so much of the Baron Munchausen style in the advertisements of Drills in the Genesee Farmer, that your readers may think the effort is to out brag each other. I have no interest in bragging of SEYMOUR'S Machine. I have owned and used his broad cast sowing machine for the last eight years, and have noticed the improvements he has made in it. I have sown with it different kinds of grain, plaster, plaster and salt mixed, ashes, clover and herds grass seeds, flax, &c. At first it was an imperfect machine, but with the late improvements it works satisfactory in all respects.

The drill he has but recently attached, and I have had but little opportunity of seeing it work. I have been in several fields of wheat drilled in last fall, and have carefully examined the work. There is no intermissions or failure in the drills, but the wheat has come up uniformly in all of them. I have examined fields put in with PALMER'S drill last fall, and the year before, and have found some of the drills missing for rods together, and then a great deal too much wheat would be dropped. From the manner in which the wheat is agitated in SEYMOUR'S drill, I think a failure of dropping seed will rarely occur. I have no doubt but it will sow wheat which has been soaked and rolled in lime, or plaster, and barley and oats, although I have not seen it done. I have drilled in corn and beans, and my neighbors have drilled in beets and carrots, satisfactorily.

From what I have known of this drill and sowing machine, I have no hesitation in saying that I think it a valuable machine ; and it can be altered from a drill to a broad cast machine in a few minutes.—However popular drilling may become, some of the smaller grains, clover and grass seeds, plaster, ashes and lime, will always be sown broadcast

It is not always the horse upon which bets are the most freely offered, that wins in the race—so, don't start until SEYMOUR'S Machine is in the field. After a fair race, let impartial judges decide. At all events let the farmer be benefitted, whoever wins or loses.—MYRON ADAMS. *East Bloomfield, N. Y.*, 1849.

REMARKS.—The testimony of our valued correspondent is reliable, inasmuch as it is founded upon experience, as well as observation. We were favored with an opportunity of examining Mr. SEYMOUR'S drill, a few days since. It is well built, and possesses some improvements and advantages over many of the other drills now in use. Whether it will prove "A, No. 1," among the drilling machines recently offered to the public, is a question which remains to be determined. At any rate we think it worthy of a trial by grain growing farmers—for, whether best or second best, it will be found a valuable labor-saving (and seed-saving) article.

We will add, for the information of those who may desire to obtain this Drill, that it may be had on application to Seymour & Morgan, of Brockport; C. Seymour, of York ; Anthony, Rountree & Everson, of Union Springs ; or P. Seymour, of East Bloomfield, N. Y. See advertisement in May number.

CATTLE IN CHAUTAUQUE COUNTY.

MR. T. B. CAMPBELL, of Westfield, N. Y., communicates the following to the *Cultivator* :—

The County of Chautauque, is perhaps, one of the best agricultural sections of the State of New York, and particularly adapted to the breeding and rearing of stock. Hence it has been an object among our farmers for a number of years past, to improve the breed of cattle, sheep and horses. The short horns, and that breed crossed with the common stock, have, until recently, been considered the most valuable, and yielding the greater profit. A few years since the Herford breed was introduced here, at first they did not meet with general favor; it was feared that they were too small, and that they would reduce the weight of our cattle. Experience has proved such conclusions entirely wrong. The cross with the Hereford and our cows, they being generally of the short horned descent, proves to be one of the greatest improvements in the breed of the Chautauque cattle that has yet been introduced, and will add much to the interest of the breeder and farmer. I cannot speak with as much cretainty from my own experience, in regard to their quality for the diary, but those who have proved them, recommend the richness of their milk in the highest manner, and rank them in the first class for the dairy.

COST OF FENCES IN THE UNITED STATES.

BY J. S. SKINNER.

The cost of building and repairing the Fences in the United States, is enormous, almost beyond the power of calculation, and forces the enquiry, whether Legislatures ought not to be called upon to compel every man to keep his stock to himself. Then no man, who did not choose to do it, would be forced to enclose his land against the ravages of his neighbor's stock.

Mr. Biddle, a few years since, in an address before the Philadelphia Agricultural Society, stated that the cost of the fences in Pennsylvania amounted to $100,000,000, and their annual expense he estimated at $10,000,000. A distinguished writer on National Wealth, says: "Strange as it may seem, the greatest investment in this country, the most costly production of human industry, is the common fences which enclose and divide the fields. No man dreams that when compared to the outlay of these unpretending monuments of human art, our cities and our towns, with all their wealth, are left far behind. In many places the fences have cost more than the fences and farms are worth. It is this enormous burden which keeps down the agricultural interest of this country, causing an untold expenditure, besides the loss of the land the fences occupy."

Estimating a chestnut post and rail fence to last 18 years, and including inside fencing and repairs, the *annual* tax to the farmer holding 150 acres, will be $130 to $140, and judging from the present appearances, the tax is perpetual, and there seems but little hope of escape from it.

Did the intelligent farmer reflect a moment, and estimate the annual tax which his fences impose upon him, he would not rest till the system was abolished, or else the live hedge took the place of the present expensive fence of timber.

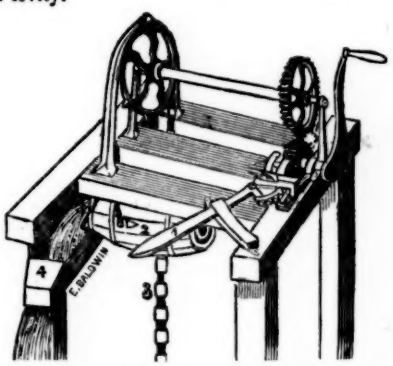
The system of compelling every landholder to enclose his property, is peculiar to the United States, with only the exception of England, where the fence nuisance appears again under the form of the hedge; and although these hawthorn hedges, when they are well tended—and not more than half of them are so—are beautiful objects, and answer all the purposes of protection against the inroads of cattle, still the public voice is beginning to cry out against them, because of the enormous amount of land required to support them. Each hedge is five or six feet wide at its base, and taking into account the amount of land they exhaust on either side, the whole space cannot be less than twelve or fourteen feet wide. When it is recollected that the divisions and sub-divisions of land in England are very numerous, the amount of arable land abstracted from the purposes of agriculture, is very great. It has been estimated at several million bushels of grain.—*Plough, Loom and Anvil.*

Wheat at the South.—This important crop has been more than half destroyed by frost, rust and insects. "Canal Flour" is coming here by the cargo. At present it is impossible to form a reasonable conjecture how much will be needed before the next harvest. Corn has been as high as 85 cents in this city, (Augusta, Ga.) It is now (6th June,) 65 cents.—Flour $7 a barrel. One thousand bundles of Northern hay landed within the last month, and is selling at $1 25 per 100 lbs. Corn promises well. Cotton less than an average crop by 20 per cent.

A NEW WATER DRAWER.

A. Green & Co.'s Self-acting, double Well Buckets.—This invention performs double the work with the same labor, that the common windlass bucket does. It is so simple in its operations that a child can as easily and safely draw water as an older person. It brings up the water from the shallowest wells without riling, and delivers it with the same certainty in the dark as in the light. From itse expedition it becomes very valuable, when large quantities of water are required for cattle, or in cases of fire.

It is a well settled fact, that all wells that are impregnated with any of the sulphurous gasses, do not give good water with the pump, owing to its taking the lower stratum of the water, which has not been exposed to the atmosphere, and lost its gasses—and from the accumulation of a mephitic atmosphere filling the closed well with its noxious properties, and surcharging the water; while the bucket, from its motion, constantly renews the air and takes the water from the surface, which has given up its gasses from their levity.



One of these machines can be seen in operation, on the farm of L. B. Langworthy, Esq., Ridge Road, three miles from Rochester—and in a few days, one will be on exhibition in this city. Messrs. A. Green & Co., of Port Byron, N. Y., are the manufacturers.

Use of Inferior Farm Implements.—We lately saw an old fashioned plow at one of our largest plow manufactories. On inquiry, we found that it was a pattern on which the proprietors commenced their business, some 15 or 20 years ago; and although a very good plow, for that period, it is superseded among all intelligent farmers, by other and more recently constructed patterns, which will do the same work, and with at least a quarter less labor.

We found that the single reason of its now being employed, in preference to others, with most of those using it is, that it has a point, or share of cast iron, costing some 15 cents each, which admits of being worn out at both ends, instead of one end only, as those now constructed. The saving of 7½ cents, in this share, determines its use; and this is saved at an additional expenditure of team power, costing not less than 25 to 50 cents per day, which, by the time the share is worn out, would amount to from $5 to $50, according to the soil. Such wiseacres are never guilty of taking nor reading agricultural papers, to teach them a better system of economy.—*American Agriculturist.*

MANUFACTURE OF CHEESE.

BY A. L. FISH.

[Continued from page 142.]

In raising the heat to scald the curd, it is not proper at all times to raise it to a given point with the same rapidity, because, sometimes when the curd appears ready to scald, a rapid increase of heat will soften instead of hardening it, owing to the rennet not having time to perform its office properly. At other times it may be necessary to raise heat speedily, in scalding, to keep pace with the effect of rennet, which is accelerated by the milk being nearly sour. The slower rennet acts upon curd the longer time is required to raise and hold a scalding heat, never exceeding one hundred degrees, Fahrenheit, except to suppress a speedy action of rennet with sour milk; then, an excess above blood heat will retard its operation and keep pace with its effect. The cheese-maker should bear in mind, that heat and rennet are the principal agents used, and success depends much upon their action being properly combined throughout.

"Are any other than calves' rennets used, and what is the best method of preserving and preparing them for use?"

Swines' rennets were formerly used, mixed with those of calves, to make a cheese soft and tender, and those of sheep and beeves were used to harden curd and keep cheese in a pressed shape; but I know of no dairyman that now uses them.

Whatever plan is adopted to preserve rennets for future use, care should be taken that the decomposing properties of the stomach do not continue to act, and the strength evaporate. When salted and dried the rennets should be kept in a dry atmosphere, or the salt in them will attract moisture, and soon destroy their best properties. It is argued by many experienced dairymen, that the stomach, with all its contents pickled together in salt, will make more cheese, and of as good flavor, as when dried without the curd. But I would ask, if meat were salted with all the blood and animal fluids in it, would it be as good flavored at the end of a year, as if well dressed and salted? And would not a quantity of food, half digested, salted with the stomach, materially effect its flavor, if kept a long time? Beef and pork are sold in market, after being in salt one or more years, at a reduced price, as "old meat," having lost its best flavor.

The flavor of cheese depends much upon the flavor of the rennet used. Therefore, I think splitting the rennet, and stretching it with sticks, so that it will be of a single thickness, and will dry quickly, is the best and surest way to preserve a good flavor.

TO PREPARE RENNETS FOR USE.—Take as many gallons of water as rennets in number; put them in the water, blood warm; soak them twenty-four hours; stir them frequently in the time; strain the liquor and let it settle; make it as salt as possible; if any skum rises it should be skimmed off. While this liquor lasts a uniform strength may be relied upon. It should be stirred to the bottom before being used.

"Is milk more apt to sour from the effect of electricity, in tin vessels, than in wood?"

The ease with which tin vessels are kept clean, makes them preferable to wood. An opinion conceived by many, that tin vessels have a tendency to sour milk, at a season when thunder showers are frequent, is not an objection to their general use. There are other causes for milk's becoming sour, to be taken into account first. Excitement of cows from any cause will affect their milk, and they are more excitable in changeable weather, than when the weather is steady, cool or warm. In hot, damp weather, more cows will be in heat, and give bad milk, which if mixed with other milk at evening, will be a more direct cause for sour curd than any effect of electricity upon milk, after it is taken from the cow; and in such weather, milk vessels are not thoroughly dried, after being used, in which state they often get foul. An old barrel, put up in form of a leach, near the dairy room, and ashes thrown into it occasionally, and leached, and the lye used freely about cheese-cloths, press, &c., will remove one cause for sour curd. I use no wood vessels in my dairy.

"Is there danger of pressing a cheese too hard?"

Not any. If it has been over heated in the milk or curd, it may be pressed so dry that it will be a *lifeless* (tasteless) cheese, and so it would be if it were pressed lightly.

"Should the animal heat be allowed to pass off from the morning's milk?"

The most perfect affinity should be maintained among the constituent parts of milk that is curded or worked together, throughout, that it may not waste in working; and plague in curing. It is, therefore, necessary that all should be cooled and warmed alike. A. L. FISH.—*Litchfield, Herkimer co., N. Y.*, 1849.

BENEFIT OF AGRICULTURAL PAPERS.

FRIEND MOORE:—I send you pay for thirty copies of the GENESEE FARMER. It is all I can find, in this place, that wish to subscribe for an agricultural paper; many more, I am satisfied would, were they not ignorant of its value. There is certainly a vast difference in the cultivation of two farms, and fixtures about them, where the one is done by a man who regularly reads an agricultural journal, and the other by one who reads nothing on the subject. It is a matter of surprise to me that there are so many in this county that read nothing on this subject. There are farmers of my acquaintance who refuse to subscribe for your journal for the reason that their crop of wheat failed the past year.

I know two men owning farms joining each other in the town of ———. One of them has been a constant subscriber to the GENESEE FARMER for several years past. His fences, barns, stables and farming implements are as they should be; his stock well provided for; his farm produces bountifully. The other knows enough about farming without reading; or, in other words, does not wish to be a *book farmer;* and his farm shows it to any who may pass that way, for it is enclosed with the poorest fence in the town; his farming implements (what few he has) are in proportion. He has no shelter for his cattle but the broadside of his barn, or a small stack of straw; he has no grainery in either of his barns, and was necessitated this winter to loan the use of one from his better managing neighbor, to store a small crop of wheat which he did not get threshed in time for fall market. The former works upon good sound theory, and it gives him pleasure and profit—the latter, of necessity, and if he happens to have a good crop, (though he seldom does) he is a lucky man. And, friend MOORE, it is universally the case, as far as my acquaintance extends, that those farmers who read the most are the closest and most accurate observers, and universally get the best pay for their labor and capital invested. A FRIEND OF IMPROVEMENT.—*Seneca Co., N. Y.*, 1849.

Spirit of the Agricultural Press.

A New Manure.—Robert Bryson, Esq., of Cumberland county, about eight miles from Harrisburgh, has been experimenting for the last ten years, to make exhausted tan-bark available and valuable as a manure. Besides his magnificent farm, he likewise carries on the tanning business. Finally, after a great deal of expense and many failures, he has succeeded in discovering a method of producing from the tan, an efficient manure. This is his plan: He has his tan wheeled out on to a level piece of ground, and leveled off, two or three feet thick. Over this he spreads a layer of two or three inches of lime, and over that again a stratum of tan, then a layer of lime, and so on. He lets the beds prepared remain for two years: at the end of this time he finds himself in possession of a bed of manure, the effects of which upon the land, can hardly be surpassed for the richness of its product and the durable fertility which it imparts. —*Lancaster Co., Pa., Farmer.*

Proper Selection of Stock.—At a late agricultural discussion in Derbyshire, Mr. G. Greaves remarked that the choice of a breed of stock was as important as the management. It seemed to him that enough attention was seldom paid to the particular kind of produce it was intended to obtain from stock. The same breed did not answer for feeding and for the dairy too; for the early maturity of stock and the propensity to fatten, were most observable whenthe generative functions were not so perfect, whereas the good milker was almost always a good breeder. For early feeding stock, it would always be advantageous to mix good nursing dames with sires that had a great tendency to fatten. He agreed in the opinion that feeding stock should be kept well when young; but calves intended for the dairy, and ewe lambs for the breeding flock, should not be made fat.—*Cultivator.*

A Freak of Nature.—A communication in the Boston Courier from the late editor of that paper, Mr. Buckingham, states that Mr. William Carter, of Cambridge, has a healthy and well-formed calf, having a coat of *wool* instead of hair! There is no perceptible difference in the appearance of the animal's hide, from that of a sheep of the same age. Like the sheep, the face and lower part of the legs are covered with short and not very pliant hair; the rest of the body has a covering of wool, which, to all appearance, may afford as liberal a fleece as a true Saxon or Merino.

Camelina Sativa.—Some of the Georgia planters, for want of sufficient encouragement in the cultivation of the cotton-plant, are beginning to give attention to the culture of Camelina Sativa, (or gold of pleasure,) an unctious seed resembling flax-seed, from which oil is expressed in the same manner as from flax-seed. The plant is a native of Siberia, but well adapted to our southern climate. It is an annual growing from two and a half to three feet high, and yields a large and certain crop. It is already in demand in this country.

Worth Trying For.—The London Athenæum says that the Belgian Government has instituted two prizes of five thousand francs, with a gold medal and one thousand francs respectively; the first for the best work on general agriculture, the second for the best treatise on the disease of the potatoes. Foreigners are invited to compete, and manuscripts are to be sent to the Ministry of the Interior before the 1st of January in next year.

Extensive Coal Field.—The great central coal field of the Mississippi valley covers an area of 70,000 square miles, or 44,800,000 square acres—six times the area of all the coal fields of Great Britain; and yet, this vast supply is seldom taken into the account, when estimates are made of the coal resources of the United States.

Singular Mode of Keeping Fish alive.—Those worthy individuals who take delight in Izaak Walton's art, and who, moreover, are in the habit of sending the result of their sports to their epicurean acquaintances, must learn an indispensable piece of information, viz.: how to keep fish fresh. This may be done by soaking the soft part of bread in brandy, and inserting it into the gill of the fish, while it is yet alive, and afterwards sprinkling it over gently with brandy. Thus prepared, and carefully packed in straw, the fish will keep alive ten or twele days, as may be proved by putting it in fresh water at the end of that time when, after a few hours' immersion, it will recover from its protracted drunkenness.—*London Literary Gazette.*

Rules for Raising Poultry.—1. All young chickens, ducks and turkeys, should be kept under cover, out of the weather, during rainy seasons.

2. Twice or thrice a week, pepper, shallots, shives or garlic, should be mixed up with ther food.

3. A small lump of assafœtida should be placed in the pan in which their water is given them to drink.

4. Whenever they manifest disease, by the drooping of the wings or any other outward sign of ill health, a little assafœtida, broken into small lumps, should be mixed with their food.

5. Chickens which are kept from the dunghills while young, seldom have the gapes; therefore it should be the object of those who have the charge of them, so to confine the hens as to preclude their young from the range of barn or stable yards.

6. Should any of the chickens have the gapes, mix up small portions of assafœtida, rhubarb and pepper, in fresh butter, and give each chicken as much of the mixture as will lie upon one-half the bowl of a small teaspoon.

7. For the *pip*, the following treatment is judicious: Take off the indurated covering on the point of the tongue, and give twice a day for two or three days, a piece of garlic the size of a pea. If garlic can not be obtained, onion, shallot, or shives will answer, and if neither of these be convenient, two grains of black pepper, to be given in fresh butter, will answer.

8. For the *snuffles*, the same remedies as for the gapes will be found highly curative; but, in addition to them, it will be necessary to melt a little assafœtida in fresh butter, and rub the chicken about the nostrils, taking care to clean them out.

9. Grown-up ducks are sometimes taken off rapidly by convulsions. In such cases, four drops of rhubarb, and four grains of cayenne pepper, mixed in fresh butter, should be administered. Last year we lost several by this disease, and this year the same symptoms manifested themselves among them; but we arrested the malady without loosing a single duck, by a dose of the above medicine to such as were ill. One of the ducks was at the time paralyzed, but was thus saved.

Vinegar.—Many families purchase their vinegar at a very considerable annual expense: some "make do" with a very indifferent article; and others, for want of a little knowledge and less industry, go without. It is an easy matter however, to be at all times supplied with good vinegar, and that too without much expense. The juice of one bushel of sugar beets, worth twenty-five cents, and which any farmer can raise without cost, will make from five to six gallons of vinegar, equal to the best made of cider or wine. Grate the beets, having first washed them, and express the juice in a cheese press, or in many other ways, which a little ingenuity can suggest, and put the liquor into an empty barrel; cover the bung with gauze, and set it in the sun, and in twelve or fifteen days it will be fit for use.—*Farmer's Advocate.*

Chess—Transmutation.—Reading the article with the above caption in your paper this morning, taken from the Genesee Farmer, I send you the following for insertion in the Advertiser, or for the flames, as you think proper:

In reply to H. W., of China, N. Y., I know from my own experience, and from the experience of others, that mowing or feeding off wheat in the spring will not always change it to chess, nor do I believe it ever will. I believe the wheat was mown or fed, as stated, but do *not* believe the wheat was turned to chess. I think Simeon J. Barrett mistook a small grain of shrunk wheat for chess. If you publish this, I may send you another communication on the subject.—*Detroit Advertiser.*

Agricultural Fair in Michigan.—The State of Michigan, following the example of New York, has organized a State Agricultural Society, and the first Fair is to be held in Detroit on the 26th and 27th of September next, provided a sufficient sum of money shall be raised there to defray the local expenses. It can hardly be doubted that the amount, not exceeding $500, will be promptly subscribed. We congratulate our Michigan friends on this enterprise, and anticipate from it, if energetically and judiciously prosecuted, the most beneficial results. No State in the Union is more favorably situated for profitable agriculture than Michigan.—Her soil is fertile, her climate is mild and salubrious, and almost surrounded as she is by water, she has, in connection with her extended system of internal improvements, and navigable streams, unsurpassed facilities for sending her surplus products to market.—*Buffalo Com. Adv.*

HORTICULTURAL DEPARTMENT.

EDITED BY P. BARRY.

HARDY FLOWERING TREES AND SHRUBS.

THIS is the season of the FLOWERS' TRIUMPH. No matter how indifferent man may profess to be to their influence; he may wish to banish them from the world as *useless*, and substitute in their place what he calls *useful*. He may boast his want of taste and refinement—his insensibility to the charms of grace and beauty—he may proclaim his own ignorance, and glory in his own shame;—yet that man remains to be found whose feelings are not touched, and his heart captivated by the lily and the rose, and their companions in beauty. He has not traveled far on his journey through life, who has not stopped to do homage to the flowers.

This is not only the season of the FLOWERS' TRIUMPH, but it is the season that awards the diligent cultivator a hundred fold for all his toils. Many who had resolved on better things, have now bitterly to lament that the spring is gone, the season of flowers come, and their grounds present the same unsightly appearance as in former years, while those of their neighbors literally "*bud and blossom as the rose.*"

The following are a few select Trees and Shrubs that have bloomed during the month of June:

The *White flowering Horse Chestnut*, is a noble tree, considered in all respects—*form*, *foilage* and *flowers*—entirely free from disease of any sort, and flourishing in all soils and situations. It is becoming more and more a favorite for street, park and door-yard planting. It is fast taking the place of the *Button-wood*, which is rapidly dying off from some disease that has been preying on it for a few years past. Nothing surpasses the beauty of a fine Horse chestnut in bloom. The dense and luxuriant mass of foilage form a rich back ground for the flowers which rise up in spikes a foot or so in length. There are red and yellow flowering species, and several rare varieties, but whilst all are desirable for large collections, none of them equal the common or white flowering for general planting. Propagated from seeds planted either fall or spring; the rare ones are budded or grafted on the common.

The *Mountain Ash* is another beautiful tree of a habit similar to the preceding—that is, with a round or regular shaped head. The foliage is small but dense. The flowers appear in umbels, like those of the carrot or parsnip, and are succeeded by clusters of reddish yellow berries, that coustitute the peculiar beauty of this tree, in the Autumn. There are two species commonly cultivated, the one European and the other American. The European has the most compact and regular habit; small, but greater density of foilage, and smaller and deeper colored fruit. The American is more spreading or irregular in habit—large foilage and fruit. Each has a beauty of its own, suited to different tastes and positions in a different landscape. We like them both. They grow rapidly enough to suit any one of moderate patience. The berries are gathered in the Autumn, the pulp washed off, and the seeds buried in a dry soil or sand for a year before planting. Most of the seeds of the American species will grow the first year, if scalded. It is usually said of this tree, and truly, that "it needs no pruning and is never out of shape."

The *Flowering Ash*, (Ornus europasus.)—This tree, although long cultivated, is by no means common—yet it well deserves a place among select trees. It grows vigorously and with moderate rapidity. It forms a round dense head—foilage, deep green and glossy—and the flowers, which are of greenish white, are produced in large clusters about the middle of June. It is usually grafted on the common species of Ash.

The *Laburnum*, or Golden Chain, is one of the most elegant trees. It has a spreading, irregular habit, rich deep green foilage, and pendulous racemes six to twelve inches long, of golden yellow blossoms. There are two species, the *common* and the *Scotch*, that resemble each other; the latter flowers a week or so later. There is also a purple variety, with pendulos flower spikes like the others, but of a reddish purple color, with a yellow tinge. These three make trees twenty to thirty feet high. Of the same genus (cytussus,) there are many dwarf and pendulous growing species, with white, yellow and purple flowers, that make very pretty border shrubs, and when grafted on the common sorts, four to six feet high, make charming little trees for a lawn. Of these we have now before us the *purpureus*, with slender branches and delicate, pretty blossoms; *triflorus*, three flowered—yellow flowers in great profusion; *falcatus*, or sickle podded, also yellow. The common sort, first named, is propagated from seeds, as the locust; the others are increased by grafting, budding or layering. While speaking of these we may mention another fine plant akin to them, the common or Scotch Broom—a shrub that grows six or eight feet high, small leaves, and bright golden yellow flowers, now, (June 16,) in full bloom. Raised from seeds, also, or layers, as may be convenient.

Flowering Thorns.—These rank among the finest spring or June flowering trees and shrubs. The *Double White* has its flowers in large clusters of charming little double, pure white blossoms, changing to pink as they decay. The *Double Scarlet*, is quite rare, only different in color from the preceding. Then there is the single pink, and single scarlet; the centre of the flowers of both is white, and adds much to their beauty. They have the delicious fragrance of the English Harwthorn. We hold all these to be indispensable in a nice collection of flowering trees and shrubs. They are increased, like fruit trees, by grafting or budding on the common thorns. We see no difficulty in the way of making hedges of these beautiful thorns. They can be propagated by budding rapidly, and at one year from the bud will be fit for hedge rows; and, if mixed with *Privet*, to fill up spaces, we think that, for the enclosure of lawns, &c., where beauty would be desirable, these would be just the thing. We can imagine nothing more beautiful than a hedge of these Double White and Scarlet thorns, in full blossom, enclosing a bright green lawn.

The White Fringe, (Chionanthus virginica,) now (June 18) in full bloom—a distinct and beautiful shrub or small tree, ten or fifteen feet high, with very large, glossy foliage, and pure white, delicate flowers, resembling cut paper. It is increased from seeds, but they will lie a year in the ground before they grow. It may be grafted on the common ash. It loves a moist soil. In its own class of trees it has no rival.

The *Spiræas* are a fine class of shrubs, ranging from about two or three to twelve feet in height, and bearing immense numbers of beautiful clusters of white flowers. The *Spiræa lanceolata* is the most

charming of all. Its clusters of blossoms of the purest white, contrasting with its bright green leaves, presents a picture enough to enrapture the lover of earth's beauties, and stir a chord of feeling in the most senseless heart.

The *Rose Acacia* is a beautiful shrub, deserving a place in every collection. The *Lilacs* are well known, and the common purple and white generally cultivated. The *Persian Purple*, *White Persian*, and *Mimosa leaved* are fine and rare sorts.

HINTS FOR JULY.

See that your Dahlias are carefully tied up to stakes, and all superfluous shoots taken off. Water plentifully in case of drouth, and have an eye to the attacks of insects—and in a little while they will pay you liberally for the attention.

Plants that are headed out, in masses—such as *Verbenas*, *Roses*, *Petunias*, *Phloxes*, &c., require attention. The great object to be aimed at is to have the ground entirely covered by a mass of foliage and flowers. To secure this, the shoots must be laid down, and where necessary, staked to the ground.

Tie up neatly all Herbaceous Plants. Cut off withered flower-stems, and keep your beds free from weeds.

Fruit.—As soon as the fruit is gathered, strawberry beds should be thoroughly free of weeds, and of the runners, if the beds are young; but if old, plant out good strong runners for a new bed, and spade down the old ones. Choose damp, cloudy weather for this; and if you can find such weather, no matter how soon you "fix" your strawberry bed.

Pear trees for Pyramids, should have their side-shoots pinched to keep them in shape. It is much better than a heavy pruning in spring or winter, which induces such vigorous growth as usually retards bearing. *Dwarf* and *Pyramidal Cherries*, and indeed all Garden or dwarf trees, are much better for this summer pinching, as it in a great measure obviates the necessity of a pruning the following spring, and hastens bearing.

In raising *standard trees*, the side branches should never be wholly removed until the stem has acquired strength and proportion. When they are removed, the tree becomes *top-heavy*, and unable to support itself. Pinching occasionally these side branches keeps them in balance and assists the tree in acquiring strength where it is needed.

Effects of the cold and wet weather on the Peach.—In the month of June every year the young leaves of the peach tree, are more or less affected by changes of temperature, as we suppose. Some hold the opinion, that it is caused by insects, but we think without good reason. This season it has been much more injurious to the trees in this vicinity than we have ever known it to be before. The leaves have been wholly affected, becoming swollen, thick, heavy and crumpled, and will all drop. The trees have suffered greatly from it, particularly large trees of bearing size. In many cases the sap has become diseased and is producing what is known as the "gum," to which all the stone fruit trees are liable.

We can think of no other cause for this malady than our cold and exceedingly wet weather in May and June. Our trees in this region, passed through the severe winter unscathed. They blossomed well, set their fruit abundantly, and had commenced growing vigorously. We apprehend, however, that a great portion of the crop will be lost through this malady. Trees that have suffered in this way will require particular attention, or in many cases they may be lost entirely. As soon as the disease terminates, (which will be when the weather becomes steadily warm,) and the tree begins to grow again, the parts most affected, and all feeble or diseased branches, or parts of branches, should be removed, so as to encourage the production of vigorous, healthy wood for next year's bearing.

It may be added, that as far as we have observed, young nursery trees do not seem to suffer more than to be slightly retarded in their growth. The shoots made by the buds inserted last season are generally not affected at all.

THE NEMOPHILA.

The *Nemophila insignis* is one of the prettiest of all dwarf annuals for the border, or for masses on a lawn. Its foliage is delicate and fine, and its flowers of a beautiful blue. It blooms in great profusion, and a long time. We extract the following notice from the Horticultural Magazine (English.) There is another new and rare one, *maculata*, of a fine dark violet, with a white spot in the margin of the petal, worthy a place among the select annuals:

This is a showy annual of a dwarf growth, which soon displays abundance of small blue flowers, a little cupped, having a pure white eye, and deeply cut leaves. Its seeds may be sown at different seasons, a few in April, and a few at the end of September; for if the winter be not very sharp, they will bloom very early in spring, and those sown in the spring will come into flower by the time the autumn-sown ones decline. The young plants will bear removal, but I prefer sowing them where they are to bloom; there is, however, no harm in planting out the few that you take up from a patch when they have been sown too thickly; and some gardeners make them regularly potted plants, and therefore sow all in one place, and pot off or plant out at pleasure. They are very beautiful till they begin to straggle along the ground, when, although they still keep flowering a little, I should advise you to pull them up to make room for something better.

Apples.—(A. T., Mich.) The Mother and Melon apples are first rate; the latter, particularly, we know to be, as you say, "A, No. 1." We never thought so much of it as we do now. We have had it in fine eating on the *first of May*. To our taste, it is far superior to the "Wagoner," which is a good apple.

EFFECTS OF THE PAST WINTER ON TREES.

FROM many portions of the Western States we have information that the severity of last winter has been exceedingly distructive to trees. A friend in Illinois, says :—"*All* of our orchard peaches, and *most* of our choice cherries, (and we had 'a good few' of them, as our Yorkshire neighbor says,) are dead—defunct, *winter-killed* ; not blighted a la——, but killed by cold. And many, too many, of our pears are in the same fix, and *eke some*. Our two or three years old nursery peaches mostly dead, and one year old two-thirds dead, and last years buds half dead. Most of the *native seedlings still alive*, and on the lower limbs (which were buried in snow,) there were abundance of flowers, and will be some fruit. Mr. ——, of Wisconsin, writes me that nearly all of his pears and plums in the nursery are dead, and also many apples."

The nursery business here has quite enough of toil and trouble for us, but in a climate like that of portions of the west, how must it be? What a thorough cure such experience as the above would be for some persons who seem to be laboring under a delusive idea that the nursery business is one of the most lucrative and delightful in the world. Before they get into it they dream of Fruits and Flowers, pleasure and riches ; after they get fairly embarked in the matter, they sometimes dream of *excessive cold, heat, frost, snow, hail-storms, blight, insects, rain, drought*, and a thousand other things that annoy the poor cultivator.

In Western New York we had a remarkably severe winter, but vegetation seemed to suffer very little. We have not seen a single tree, old or young, winter killed. Pawlonias, Ailantus, Catalpas and other tender trees are quite uninjured. Young Deodar Cedars, Auracarias, and other evergreens planted out last summer, and not protected at all during the hardest part of the winter, are perfectly safe. Roses generally, had more of their tops winter killed than usual, but this has done them very little harm.

Fruit trees are very promising, as we stated in the June number. Apricots, Nectarins, Peaches, Plums, Apples, and indeed all the fruits, are bearing at this moment, an abundant crop. The young trees in the nursery never looked better. The buds of peaches, pears, plums, and indeed all the fruits look unusually well. This is a great contrast with the state of things in Illinois, Wisconsin, &c., which our friends communicate.

CULTURE OF ORCHARDS.—It is an indispensable requisite, in all young orchards, to keep the ground mellow and loose by cultivation ; at least for the first few years, until the trees are well established. Indeed, of two adjoining orchards, one planted and kept in grass, and the other plowed for the first five years, there will be an incredible difference in favor of the latter. Not only will these trees show rich dark luxuriant foliage, and clean smooth stems, while those neglected will have a starved and sickly look, but the size of the trees in the cultivated orchard will be treble that of the others at the end of this time, and a tree in one will be ready to bear an abundant crop, before the other has commenced yielding a peck of good fruit. Fallow crops are the best for orchards, —potatoes, vines, buckwheat, roots, Indian corn, and the like. An occasional crop of grass, or grain may be taken.—*Downing*.

ANSWER TO CORRESPONDENTS.

DEGENERACY OF APPLES BY CONTINUED GRAFTING.—I have been informed by some of our oldest innabitants, that the uniform effect of grafting successively from a graft, is, degeneracy of the fruit; that the degeneracy commences with the third remove from the parent stock, and is increased with each successive departure: Thus the fruit of a graft taken from a seedling stock, is better than the original; that the fruit of a graft taken from this graft, will be about equal to the preceding; but that the fruit of a graft taken from this latter, will be inferior to the preceding; and that the next will be still worse, and so on indefinitely. *Query.*—Is it always so? H.

No, not *always* so, nor so in any case. What would be the natural result of this law of *degeneracy*? Why, it is plain that our best apples would, in perhaps fifty years from the seed, be no better than crabs. Bad modes of propagating, the use of bad stock, bad culture, &c., &c., causes degeneration in trees and consequently in the fruit; but grafting alone, under proper circumstances, does not, nor never has, caused degeneracy. On the contrary it may, and in many cases does, greatly contribute to the amelioration of fruits, as most cultivators very well know.

GARDEN SNAIL OR SLUG.—Can you inform us of any remedy for the snail? Many of our gardens in Palmyra are badly infested with them. They cut down our cabbage plants, tomatoes, cucumbers, squashes, corn, pumpkins and choice flower seed plants, almost as fast as we can get them out of the ground. They appear early in morning and evening, by hundreds. The first we saw of them was last season, destroying our cabbages.

We have tried ashes and lime, and for a time it makes them writhe in pain, but soon appears to loose its strength and they cease to mind it. Our borders are also troubled with black ants, large and small. Any information in the Farmer will greatly oblige many here, and elsewhere as I learn. R. G. PARDEE.—*Palmyra, N. Y.*, 1849.

AIR-slacked lime can hardly fail to destroy the slugs. It should be applied early in the morning, in the evening, or after a rain. Lime water and other caustic solutions are used sometimes with success. We have seen it suggested some where to place at short distances through the garden, small heaps of bran. The slugs assemble round these and can the more easily be killed. During the heat of the day a great many may be destroyed in the shade of garden fences, plants, or other objects about the garden.

Ants are destroyed by inundating their retreats with *strong salt water, boiling water*, or *water and oil*. To prevent them from injuring fruit, a ring of some sticky substance like paint, may be put around the tree, and renewed, to prevent their ascent—or a band of wool, or some such material, will effect the same object. If they once get into a tree they can be trapped with vials of sweetened water hung among the branches.

EARLY RICHMOND CHERRY SEEDS.—(I. F.) We know of no reason why good well ripened seed should not grow. Your failure may be owing to some mismanagement in saving the seed ; sometimes we fail entirely with the Mazzard and others. The seeds of all cherries should either be sown immediately when gathered, or be cleaned of the pulp and put away in earth or sand till planting time.

THE APPLE TREE BORER.—(A Subscriber, Windsor, N. Y.) This is no doubt, the insect you have found in your trees. The larvæ is thus described by Harris, in his "Treatise on Insects" :—"Whitish grubs nearly cylindrical, and tapering a little from the first ring to the end of the body.—The head is small, horny and brown ; the first ring much larger than the others, the next two are very short and with the first, are covered with punctures and very minute hairs; the following rings to the tenth inclusive, are each furnished on the upper and under side, with two fleshy warts situated close together, and destitute of the little rasp like teeth that are usually found in the grubs of the other capricorn beetles; the eleventh and twelfth rings are very short, no appearance of legs can be seen, even with a magnifying glass of high power." The lervæ state continues two or three years. The safest and surest method to get rid of them, is to cut them out carefully with a knife, or they may be killed by a wire thrust into their holes.

PARADISE STOCK.—(T. H., Richfield.) The usual method of propogation is by layers. Those used in this country have so far been mostly imported.

BOTANY.

STRUCTURE AND FUNCTIONS OF THE STEM.

PLANTS are divided into *exogenous* and *endogenous*.

The *exogenous* are those which grow by accumulation, or layers of matter from the outside. This class includes nearly all forest trees and most shrubs and herbaceous plants of temperate climates.

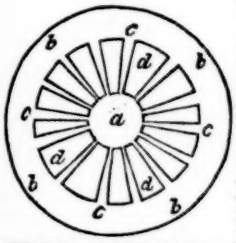
The *endogenous* plants are those which grow from the inside, or by accretion of matter within that already developed. Most of the bulbous plants of temperate regions, all the grasses, and the palms, cane, &c., of tropical countries, are endogenous.

The *exogenous* stem consists of bark, wood and pith.

The *pith* is a light spongy substance, at the centre of the stem; it is composed of cellular tissue, and seems to exercise its peculiar functions only during the earlier growth of plants. (Wood.)

The *wood* is composed of cylindrical or concentric layers, intersected by medullary rays, which are those thin dense plates of wood dividing the "grains," and are large and easily seen in a piece of beech or oak wood which has been split. The pith, together with the first layer which incloses it, are the product of the first year's growth; one new layer is formed every succeeding year,—so that the number of rings or "grains" at the base of the stem indicate correctly the age of the tree.—Each layer is composed of woody fibres, vasiform tissue and ducts.

Fig. 1.



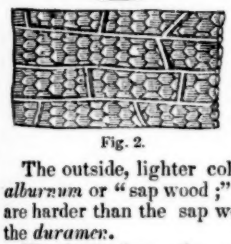


Fig. 2.

[Fig. 1 represents an exogenous stem of 1 year's growth; a, pith; b, bark; c, medullary rays; d, woody bundles of fibre. Fig. 2, lenticiferous vessels of the bark.]

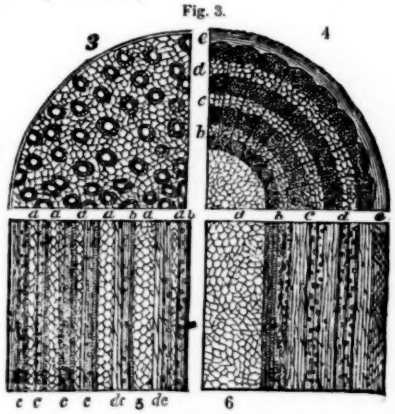
The outside, lighter colored layers constitute the *alburnum* or "sap wood;" the brownish layers inside are harder than the sap wood, and are hence called the *duramen*.

The bark forms the external covering or integuments of the stem and root. The bark consists of three distinct layers: the outside covering is called the *epidermis*,—this layer is sometimes covered with a coating of gummy, oily or resinous matter. The middle layer is the *cellular integument;* and the inner coat the *liber*. The two outer layers are of cellular structure, while the inner one is both cellular and woody.

The *sap* is carried by the vessels through the alburnum to the leaves, with the vessels of which they communicate; while in the leaves, the sap undergoes some changes, (not well understood,) by means of the air and light, by which it is converted into a fluid called *latex*. From the vessels of the under side of the leaf, it descends by the vessels of the inner bark; part of it is carried inwards by the pores of the medullary rays, and diffused through the stem, while the remainder descends to the roots, and is distributed through them. Sap is milky, gummy, saccharine bitter, &c., in various plants.

At the end of spring a portion of the descending sap, which is now transformed into a viscid glutinous matter called *cambium*, is deposited between the liber and the wood, becomes organized into cells, and forms a new layer upon each. Soon afterwards, the new layers are pervaded by woody tubes and fibres, which commence at the leaves and grow downwards.—"The number of layers in the bark and wood will always be equal." (Wood.) The outer bark of young twigs seems to perform the same function as the leaves; in the cactus, staphelia, and other plants which produce no leaves, the bark must perform the same office as the leaves do in plants which produce them. (Johnston.)

Fig. 3.



[Fig. 3.—3, horizontal section of an endogenous stem, exhibiting the bundles of woody fibre, spiral vessels and ducts, irregularly disposed in the cellular tissue; 5, a, a, cellular tissue; b, spiral vessels on inner side of dotted ducts, c, c; d, woody fibre on the exterior side; 4, stem of three year's growth; a, pith; e, bark; b, c, d, successive annual layers; 6, a, pith; b, spiral vessels of the medullary sheath; c, dotted ducts; d, woody fibre; e, bark.]

The *endogenous* stem exhibits no distinction of bark, wood and pith,—and no concentric annual layers or grains. It is composed of cellular tissue, woody fibres, spiral vessels and ducts, the same as that of exogens. The cellular tissue exists equally in all parts of the plant; the rest are in bundles, imbedded in the stem: "each bundle consists of one or more ducts, with spiral vessels adjoining their *inner* side next to the centre of the stem, and woody fibres on the outside, as in the exogen.

"A new set of these bundles is formed annually, or oftener, proceeding from the leaves, and passing downwards in the *central* parts of the stem, where the cellular tissue is most abundant and soft. After descending awhile in this manner, they turn outwards and interlace themselves with those which were previously formed."—*Rodgers' Scientific Agriculture.*

WEEDS IN GRAVEL.—For more than ten years past, says a recent writer, I have used salt, (but not in solution,) for destroying and keeping down weeds in my gravel walks, with perfect success, and without perceiving that the application acted as a stimulant to reproduction. The contrary is the case. I sow the salt by hand in dry weather, and sweep it about thin, and as regularly as possible. I have seldom occasion to do this more than once in twelve months.

Never court the favor of the rich, by flattering their vanity and their vices.

Ladies' Department.

DOMESTIC EDUCATION.

The time is coming, when domestic duties are expected to be performed upon scientific principles; and we are bound to employ every means in our power to make ourselves acquainted with the sciences pertaining to our domestic affairs. A knowledge of chemistry and dieteties, in a cook, is invaluable to a family. Information regarding the laws of health, and life, and mental philosophy, is absolutely necessary to the proper rearing of children. The suffering I have seen and experienced for want of knowledge, and the almost incredible advantage gained by the application of a few practical ideas, makes me very desirous for others, as well as myself, that we should have "more light."

I think, however, it is not proper that we should always be in performance of the sober duties of life. Nature does not bestow all her care on the sturdy oak and mountain pine, but adorns the landscape with an endless variety of fanciful colors and forms, enlivens the whole music, and the frolicsome play of animated beings. Nor did she fail to implant in the human mind faculties harmonizing with the beauty, melody, and gayety of external nature, which find a legitimate sphere of action in ornamental horticulture, vocal and instrumental music, &c. AMANDA.

FEMALE CULTURE.—The great entertainments of all ages are reading, conversation and thought. If our existence after middle life is not enriched by these, it becomes meagre and dull, indeed—and these will prove sources of pleasure just in proportion to the previous intellectual culture. How is that mind to have subject matter of pleasurable thought during its solitary hours, which has no knowledge of the treasures of literature and science, which has made no extensive acquaintance with the distant and the past? And what is conversation between those who know nothing? But on the other hand, what delight is that mind able to receive and impart, which is able to discuss any topic that comes up, with accuracy, copiousness, eloquence and beauty? The woman who possesses this power can never fail to render herself agreeable and useful in any circle into which she may be thrown, and when she is so, she cannot fail to be happy. A full mind, a large heart, an eloquent tongue, are among the most precious of human things. The young forsake their sports and gather round, the old draw nigh to hear, and all involuntarily bow down to the supremacy of mind. These endowments add brilliancy to youth and beauty, and when all other charms are departed, they make old age sacred, venerable, beloved.

INVENTION FOR THE LADIES.—A lady in this State is about to apply for a patent for an invention which is at once ingenious, useful, and exhibits inventive qualities of no common kind. It is an article of domestic furniture, which answers for a cradle, a baby jumper, a table for the child to amuse itself with its play-things, and it can be transformed in a moment, to a seat with castors on it, by which the child can by its own power, use it as a walking chair, and move it from place to place simply by pushing it.

TO DRESS RICE.—A lady recommends to us the following: Soak the rice in cold salt and water for seven hours—have ready a stew pan with boiling water, throw in the rice and let it boil for ten minutes, then pour it in a cullender, cover it up hot by the fire for a few minutes, and then serve. The grains are double the usual size, and distinct from each other.

Boys' Department.

PREMIUM ARITHMETICAL QUESTIONS.

THE following letter from Mr. CLARK, shows that only one of the Premium Questions published in our February number has been correctly solved:—

MR. MOORE:—I have just finished perusing the package of letters that you forwarded to me at Geneseo, and which only reached me last week. After examining them all I do not find one correct answer; and as but one answer has been received, I will announce that as the successful one.

Solution of First Premium Question.—The premium for the solution of the tree sum has been awarded to D. M. BERRY, of Holley, Orleans county, N. Y. Mr. B. has not only given the correct answer, but the *only correct answer* that has been received. The answers are,

57.09÷
92.91—

I have received some two hundred or more letters giving answers to this question.

The other questions have not been solved, and will remain open for solution. ISAAC A. CLARK. *Nunda, N. Y., May* 21, 1849.

ERRATA.—The illustrations given to my rules for finding the square of any series of numbers, (in the April No. of the F.) are rendered unintelligible by the omission of the proper signs. Please insert the following:

For Rule 1st,—12^2 is equal to 144; and twice twelve increased by one, is 25; which, added to 144, will make 169, the square of 13, the next higher number, &c.

For Rule 2d, 12^2 is equal to 144; and twice twelve, diminished by one, is 23; which, taken from 144 will leave 121, the next lower number, &c.

H.

MORAL CHARACTER.—There is nothing which adds so much to the beauty and power of man as a good character. It is his wealth, his influence—his life. It dignifies him in every condition and glorifies him at every period of his life. Such a character is more to be desired than every thing else on earth. No servile tool, no crouching sycophant, no treacherous honor seeker ever bore such character. The pure joys of righteousness never springs in such a person. If young men but knew how much a good character would dignify and exalt them, how glorious it would make their prospects, even in this life, never should we find them yielding to the groveling and baseborn purposes of human nature.

SPOKEN AGAINST.—What if people do speak against you? Let them feel that you are able to bear it. What is there gained by stopping to correct every word that is whispered to your discredit? Lies will die, if left alone. Slander never kills a sterling character.

NEVER GO BACK—Never go back—never. What you attempt, do with all your strength. Determination is omnipotent. If the prospect is somewhat darkened, put the fire of resolution to your soul, and kindle a flame that nothing but the strong arm of death can extinguish. Energy and perseverance are more potent than the gold of drones.

Editor's Table.

ERRATA.—In the article on Devon Cattle in June number, page 131, the printer added an extra cypher to the weight of oxen—making thousands, instead of hundreds. The intelligent reader would of course discover the unintentional Munchausen.

WISCONSIN FARMER.—We have received the first five numbers of a new journal, bearing the above title, published at Racine, Wis., by MARK MILLER, Esq., late of this city. The Farmer makes a very creditable appearance in all respects—being well conducted, neatly printed, and "done up" in the best form, *octavo*. The work merits, as we hope it will receive, the cordial support of the farmers of the thriving and productive State in which it is published. Monthly—50 cents per annum, in advance.

THE HORTICULTURIST.—The June number closed the third volume of this journal, and the fourth commences with the present month. It is to continue under the editorial supervision of A. J. DOWNING, Esq., and the public have the assurance of the veteran publisher, that the reputation and high character of the work will be sustained. Published monthly, 48 pages octavo, at $3 a year. Address LUTHER TUCKER, Albany, N. Y.

"THE PLOUGH, LOOM AND ANVIL."—This sterling work merits an extensive patronage. It is conducted with signal ability by the pioneer agricultural editor, J. S. SKINNER, Esq. The second volume commences this month, and the present is a favorable opportunity to subscribe. Terms, $3 a year; two copies for $5, and five copies for $10—in advance. Address J. S. SKINNER & SON, Philadelphia, Pa.

THE AMERICAN FARMER also commences a new volume this month. It ranks among the best journals in the country. Published monthly, at $1 a year. A. SANDS, Baltimore, Md.

JEFFERSON CO. AG. SOCIETY.—This is one of the best sustained Societies in the State The officers for the present year are—MOSES EAMES, President; Edmund Kirby, Benj. Maxon, Charles Wilcox, Edwin Carter, Alvin Coolidge, J. N. Rottier, David Montague. J. C. Cooper, Nathaniel Utley, and Hiram Hubbard, Vice Presidents; O. V. Brainard, Treasurer; John C. Sterling, Cor. Sec'y. E. S. Massey, Rec. Sec'y,. Next Annual Fair to be held at Watertown, Sept. 26th annd 27th. The premium list is extensive and liberal.

HUSSEY'S REAPER.—It will be observed, by reference to an advertisement in this number, that Messrs. RAPALJE & BRIGGS, of this city, are agents for the sale of this valuable machine in Western New York and Canada.

STEREOTYPING.—We would direct those wishing any thing in this line to the establishment of Messrs. JEWETT, THOMAS & Co., of Buffalo. The present volume of the Farmer is being stereotyped by them—to whom we are, in a great measure, indebted for the neat appearance of the numbers already issued. The conductor of their foundry, Mr. E. F. BEADLE, is one of the best stereotypers in the State.

WESTWARD HO!—We have just received a list of subscribers to the Farmer from *Minnesota Territory*.

Wheelers' Patent R. R. Horse Powers and Threshing Machines.

THE attention of Farmers is solicited to the following extract from a communication of J. N. ROTTIER. Esq., of Lafargeville, N. Y., June 6, 1849, concerning Wheelers' Patent Horse Powers, &c

To H. L. EMERY:—"The fact is, the whole of the Machine is an admirable simple contrivance, and that any improvement could be made to it would seem, incredible to me, if I had not your word for it. Practically a farmer, I have used these fourteen years, a great variety of Threshing Machines, Horse Powers, &c., but with none am I as well satisfied as with yours, purchased of you two years since. One year more and mine will have paid for itself, and then I would not take $200.00 for it, and do without another like it. With a change of horses in the afternoon and hands enough to stack or take away the straw, I believe I can thresh with it as much per day as with any large six horse machine, and with as much ease for the horses. But then we do not want all the neighbors to help us, as three of us generally thresh from ten to twelve hundred sheaves in a day, beside taking care of a large stock of cattle, &c. It is in fact, the very machine which should stand on the barn floor of every farmer, or where the farm is not large enough, two or more farmers should join and own one together—change works and do their own threshing. J. N. R."

NOW IN PRESS,
TO BE PUBLISHED ON THE FIRST OF AUGUST,
THE AMERICAN FRUIT CULTURIST,
BY J. J. THOMAS.

A GREATLY enlarged and improved edition of the Fruit Culturist, containing more than triple the matter of the former editions, having been wholly re-written, so as to embrace essentially

ALL THE VALUABLE INFORMATION

Known at the present time, relative to

FRUITS AND FRUIT CULTURE.

It will contain more than

THREE HUNDRED ACCURATE ENGRAVINGS,

And will include condensed and full descriptions of all fruits of merit or celebrity cultivated or known in the country.

To prevent confusion in a numerous list of varieties, careful attention has for years been given to effect the clear and systematic arrangement adopted in this work; and further to enable the reader to know at a glance, the various grades of excellence, the quality is designated by the size of the type used for the name.

The numerous figures of fruits are

EXACT IMPRESSIONS

Of average specimens. The descriptions have been prepared in nearly every case, from the fruits themselves; and to distinguish fixed from accidental characters, careful comparison has been extensively made with specimens from several different states, and with the descriptions in the best American works on Fruits.

To determine the qualities as adapted to different regions, assistance has been largely furnished by a number of the most eminent pomologists of the Union.

The whole will form a handsome duodecimo volume, at the low price of One Dollar. July 1, 1849.

Palmer's Wheat Drill.

THE subscribers have made an arrangement with Mr. Palmer to manufacture for the coming season five hundred of his new Wheat Drill, to be be sold in Western New-York. They are now receiving orders for them, and relying upon heavy sales, have determined to sell them at a SMALL PROFIT—at least twenty-five dollars less than any other drill capable of performing as much. The Drills are constructed under the immediate direction of the inventor, and *Warranted*.

An agricultural implement as important as this should be afforded at a rate that places it within the reach of every farmer. To accomplish this Mr. Palmer has spared no pains to become acquainted with all the Drills in use by consulting both English and American Agricultural works, and by procuring copies of inventor's claims, issued or pending in the Patent Office. He has used different kinds of drills for the past years, and has learned by practice the wants of the farmer. After repeated efforts and expensive experiments he has produced a simple, substantial Drill, which by way of eminence he calls a "WHEAT DRILL." It is vastly superior to the costly and complicated machines heretofore in use. This is the third Drill he has invented, and he has now brought it to that state of perfection beyond which it cannot be carried. It is the Ne Plus Ultra of Drills, combining all the advantages of every other, and free from their imperfections.

We challenge the world to produce a Drill equal to this in durability, operation or price!! ☞ All orders should be sent in or delivered to one of our agents as early as July to secure attention. J. A. HOLMES & CO.

Brockport, March 15, 1849.

Choice Strawberry Plants for Sale at the Mt. Hope Garden and Nurseries.

AUGUST and September being the best time for forming Strawberry Plantations, we offer for sale on reasonable terms, the finest varieties now cultivated. At the head of the list we place BURR NEW PINE, which, (size, flavor and productiveness being taken into consideration,) is perhaps the best Strawberry yet produced. Also,

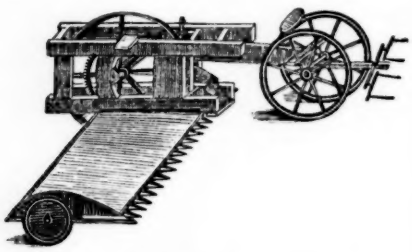
Myatts' British Queen,
Bishop's Orange,
Boston Pine,
Burr's Rival Hudson,
Burr's Columbus,
Black Prince,
Hovey's Seedling,
Large Early Scarlet,
Princess Alice Maud,
Swainstone's Seedling,
Deptford Pine,
Ross's Phœnix,

And a variety of others, such as Alpine Red Bush, Alpine White Bush, Alpine Red Monthly, White do., Wood Red and White, and a variety of others, to which we invite the attention of all who intend to plant the Strawberry. A good article costs but little more in the first place than a poor one, and re-pays tenfold.

Rochester, July 1, 1849. ELLWANGER & BARRY.

Morgan Colt for Sale.

A Bright Bay Horse Colt, nine months old, of great promise, sired by Gen. Gifford, from a mare of unsurpassed travelling qualities. Inquire at this office, or of J. DORR, Scottsville. [7-1t*]



HUSSEY'S REAPING MACHINE.

TO THE FARMERS OF WESTERN N. Y. AND CANADA.

WE would respectfully call the attention of Farmers to the fact, that we have the exclusive agency and exclusive sale of the above named Reaper, in all that part of the State of New York west of a line running north and south through Canandaigua; and also in Canada. We sell the Reapers at the manufacturers prices, adding cost of transportation. They can be examined at our store.

All who design purchasing, are earnestly requested to hand in, or mail their orders at once. This will enable us to have on hand in season, all that may be required for the above named territory, and prevent any being disappointed, as might be the case if orders were delayed till the harvest had begun.

That it is the best Reaper made, and that it would be greatly to the advantage of Farmers to have them, there is no doubt.—Annexed are a few of the many certificates which might be given

RAPALJE & BRIGGS,
Genesee Seed Store & Ag. Warehouse,
Rochester, July 1, 1849. Rochester, N. Y.

CERTIFICATES.

AUBURN, February 17, 1847.

MR. THOMAS R. HUSSEY:—I have used one of your Grain Reapers for three years, which cuts five feet. I can cut fifteen acres in one day, and in doing so, I gather the grain as clean as it can be done with a sickle. I much prefer it to any other mode of cutting grain. J. M. SHERWOOD.

MR. THOMAS R. HUSSEY:—Sir: I have used your Reaping Machine for six years, and consider it one of the most profitable Machines that can be used on a farm, and could not be induced to do without one. I can cut from fifteen to twenty acres in one day, and can get lodged grain better than in any other way. I can recommend this Machine to all farmers, as a cheap and expeditious way of getting grain. Scipio, March 6, 1847.

ISAAC AKIN.

John Delafield, Esq., of Oakland Farm, near Seneca Lake, has this season cut 104 acres of wheat in eight days, with Hussey's Reaping Machine, at cost of,

1 man and team,	1.50	per day.
Boy to drive,	50	do.
	$2,00	do.
8 days,		$16.00
Interest on cost of Machine ($100) one year,		7.00
Total,		$23.00

The same work would have taken six cradlers eight days: this, at $1.50 a day, board included, would amount to $72, showing a saving by the Machine of $49; which Mr. D. justly remarks, is nothing, compared to the anxiety which every large farmer suffers from the paucity of good cradlers, their selfish caprice, and their extortionate prices during the wheat harvest. Many a farmer, with an excited, wo-begone face, have I seen this season, riding about in search of cradlers; 'tis true, he could find plenty of wild Irish and others, who, like Highland Willie, could "neither say nor do;" but experienced cradlers were few indeed; and when found, only think, the price of two bushels of wheat for a single day's work.

This Machine is drawn by a pair of horses on low wheels; it cuts a swarth five feet wide with twenty knives, working horizontally, which are to be sharpened once a day with a whetstone.—A man sitting on the side of the platform, pushes off the cut grain with a rake, to the binders. The work was done expeditiously and neatly—not a waste head was to be seen. A field of oats had been cut with the same result.

My faith in the Machine was secured the moment I heard Mr. D. dilate upon the ease of both body and mind with which he had compassed his present harvest; when I saw the execution it had made, I had no longer a doubt of its economy and usefulness. It is one of the few patented articles of the present day which is no humbug.—[*Genesee Farmer.*

The Committee on Agricultural Implements regret that farmers and mechanices have been so remiss in not bringing out valuable implements, known to have been put in successful operation, within a few years, in different parts of this country and this State—among which are,

1st. Hussey's Reaping Machine, upward of thirty of which are owned in this county. Twenty of these were introduced the last harvest. The work done by them has been eminently satisfactory the past season. Mr. Bryan Jackson and Col. J. W. Andrews report that they cut, with one of the largest size, 54 acres of wheat in two days. Mr. William Bowman reports that he cut 14 acres in half a day. These are extra days' work, and can only be accomplished with good horses, and at good speed. From 15 to 20 acres may be deemed a fair days' work.—[*Extract of a Report from the Newcastle Co., Delaware, Agricultural Committee.*

MR. HUSSEY—Sir: It is with pleasure that I send you my certificate to recommend your valuable Wheat Reaper to the public.—I have now used it four seasons, and am satisfied that where the ground is free from large stones and stumps, it is more expeditious, cheaper, and will save from one-half to a bushel of wheat per acre more than the common way of harvesting; and it is not more than three-quarters as much work to thrash the same as when cut by cradles; and can cut from 15 to 20 acres per day.

Scipio, March 12, 1847. BENJAMIN OLNEY.

THOMAS R. HUSSEY, Esq.:—I have used one of your Reaping Machines this season, with great satisfaction, and consider it one of the most valuable labor-saving Machines in use. I cut my whole wheat harvest (one hundred and fourteen acres) with it this season. It gathers the grain clean, and saves from one and a half to two bushels an acre over the cradle. I cut *twenty-five acres* of wheat with it in eleven hours and a half. I consider it *the* Machine—and there is no other that can be compared with it. The principle of it is right, and I can cheerfully recommend it to all farmers, as a labor and money saving Machine.

Seneca Falls, Aug. 15, 1848. G. V. SACKET.

[From the Genesee Farmer]

MR. EDITOR:—In the midst of the wheat harvest, in the month of July, I paid a visit to Prairie Ronde, in this county, and have had an itching ever since to send you a description of the way they do up the harvesting on a large scale—premising that the prairie contains about 24,000 acres of plow land literally as level as the house floor, of the richest quality.

I saw Hussey's Reapers cutting thirty acres per day, with four horses, employing nine binders. The farmers thrash much of their wheat in the field from the shock, with a machine which gears on one of the wagon wheels. There were six thousand acres of wheat on the prairie, and five-sixths of it was cut by Hussey's and Moor's Reapers, and it will average 20 bushels per acre.

Yours, respectfully, KALAMAZOO.

Prairie Ronde, Kalamazoo, August 19, 1845.

TO THE EDITOR OF THE AMERICAN FARMER:—Dear Sir: Some months ago I received a letter from you, making enquiries of me relative to Hussey's Reaping Machine. When your letter reached me I was on the eve of leaving home for the summer, and since my return home, my engagements have been of such a character as to cause me until the present to neglect replying to it.

I have used one of Hussey's Machines one season, and though under circumstances not very favorable for the Machine, I take pleasure in stating that its operation was satisfactory. During my harvest, which was about three weeks' duration, this Machine was kept constantly at work, with the exception of a day and a half; yet I did not ascertain how many acres it would reap. Mr. Collins, of Lake Scuppernong, also used one last season, and from him I learned that he had cut upwards of twenty acres a day.

There is certainly much less wheat left in the field by one of these Machines than is by the ordinary method of reaping by the scythe or reap hook; it cuts close, lays the straw smoothly, thus rendering the tying of sheaves much easier.

Edenton, N. C., Jan. 28, 1848. TH. D. WARREN.

[From the Richmond Planter]

The following communication is strongly in favor of Hussey's Reaping Machine:

I have had in operation on my plantation, this year, both Hussey's and McCormick's Reapers. Now, as you have asked me to furnish the "Planter" with the result of my own experience, and opinion as to the comparative merits of the two Machines, it is now at your service. I have had them both in operation (as the weather would permit) for the last fortnight, and have cut with the two upwards of two hundred acres of wheat. Both Machines have been, I think, very fairly tested, in all qualities of grain, from wheat five feet and more in height, both standing up and lodged and tangled, and averaging, as is supposed, from thirty and forty bushels, down to light, thin wheat, not averaging more than four bushels, (being some galled hills,) and I am candidly and decidedly of opinion that Hussey's Machine is superior. So well pleased am I with its performance, that I have ordered another Machine of Hussey for my next harvest, and probably two, for my father's plantation. I consider this Machine invaluable to the grower of wheat, and would recommend every farmer who grows even fifty acres of wheat, to purchase one. He may rest assured that he will be pleased with his purchase. I shall probably be in Richmond shortly. J. POLLOK BURGUYN

Occonichee Wigwam, near Halifax, N. C., June 20, 1846.

☞ For further information relative to above named Reaper, see July number of the Genesee Farmer for 1848.

A New Book for every Farmer.

SCIENTIFIC AGRICTLTURE, or the Elements of Chemistry, Geology, Botany, and Meteorology, applied to practical Agriculture: by M. M. RODGERS, M. D., with the approval a .d assistance of several practical and scientific gentlemen. The work is illustrated by a large number of engravings, and is published in a neat style, well bound, and sold cheap.

NOTICES OF THE WORK.

"The general correctness, brevity, clearness, and multitude of its principles applicable to practical agriculture, that first and best of arts, commend the work to the youth of our land, as well as to its older and younger agriculturists.—[*Prof. Chester Dewey Principal Rochester Collegiate Institute.*

"This is an interesting and much needed volume, well adapted to the wants and taste of that intelligent portion of the community for whom it is more particularly adapted—making combined a complete system of agriculture, easily understood and readily defined."—*N. Y. Farmer and Mechanic.*

"It appears to be exceedingly well adapted for the purpose of instruction It is concise and plain—neither too much nor too little."—*Hon. Zadock Pratt.*

"We have seen enough to convince us that it is a work of rare merit, such aa one as will meet with the approbation of all intelligent readers. Every agriculturist who reads and digests should procure the work."—*American Farmer, Bal imore.*

"We commend the work to the Farmer, especially to the young farmer, as well worthy of his attention."—*Berkshire Culturist, Pittsfield, Mass.*

"We think the author has ably performed the difficult task of rendering science easy to the practical farmer."—*New England Farmer, by S. W. Cole.*

ERASTUS DARROW, Publisher and Bookseller.
Corner Main and St. Paul-streets, Rochester.

☞ For sale by the Publisher; also, at the office of the Genesee Farmer, and by Booksellers generally.

*** DARROW has a large stock of BOOKS at wholesale or retail. Orders promptly answered.

Kinderhook Wool Depot.

THE success of this enterprize, and the steady increase of business during the past four years, has induced the subscriber to associate with him Mr. THOMAS M. BURT, as a partner in the business. The integrity and correct business habits of this gentleman are well known to many prominent men throughout the State; and for more particular information, reference may be made to R. H. KING, Esq., or to JOHN T. NORTON, Esq., of Albany.

With increased facilities for extending their business, the enterprize will be conducted on the same principles as heretofore:

1. The FLEECES will be thrown into SORTS according to STYLES and quality. 2. A discrimination will be made between wool in good or bad condition. 3. All who desire it can have their clips kept separate. 4. Sales will be made invariably for Cash. 5. The charges will be, for receiving, sorting and selling, one cent per pound, and the insurance, which will be twenty-five cents on $100 for a term of three months. 6. Liberal advances in Cash made on the usual terms.

Wool forwarded from the West and North should be marked H. B. & Co., Kinderhook, N. Y., with the initials of the owners name on each sack, and shipped to East Albany.

H. BLANCHARD.

Kinderhook, N. Y., May 18, 1849.

After the 1st of June the business will be conducted under the name and firm of H. BLANCHARD & Co. Reference can be had to

J. P. Beekman,	Kinderhook, N.Y.	C. W. Richmond,	Aurora, N.Y
B. P. Johnson,	Albany, "	Nath'l. Sawyer,	Cincinnati, O.
L. A. Morrell,	Lake Ridge, "	Wellman & Co.	Massillon, O
D. S. Curtis,	Canaan, "	Freeland, Stuart & Co.,	New
C. W. Hull,	New Lebanon, "		York City.
J. Murdock,	Wheatland, "	R. Carter,	Chicago, Illinois.

An Elegant Country Residence and Farm for Sale.

CONTAINING one hundred and seventy-five acres of first rate land, situated on the west shore of Cayuga Lake, two miles south of Cayuga bridge, in the town of Seneca Falls, Seneca county. There is a large brick mansion with a two story kitchen adjoining, with wash and wood house attached; out-buildings, barn, shed and carriage house; a lawn and garden in front, enclosed with a handsome fence; apple and peach orchards, with a number of cherry, plum and pear trees. The stock, crops in ground, and farming utensils, &c., will be sold with the farm. Possession given immediately. For further information, price and terms of payment, application can be made to the subscriber, on the premises, or by letter addressed to him. Oakwood Farm, near Cayuga Bridge; or to D. D. T. MOORE, at the office of the Genesee Farmer, Rochester.

[5tf. JOHN OGDEN DAY.

Nursery to Let or for Sale.

THE Subscriber has a Nursery 1¾ miles from the Erie Rail Road Depot, from the Chemung Canal on a Plank Road running into Pennsylvania. I propose to lease it, for a term of years, or sell it, or take a partner and carry it on.

Elmyra, N. Y., 1849. DYAR FOOTE.

Back numbers (and volumes) of the Farmer promptly supplied to new subscribers.

Wheeler's Patent Horse Power and Thrashing Machine.

HAVING increased facilities for the manufacturing of the above Machines in this city, the public can be supplied with them at short notice, at wholesale and retail.

To those farmers who wish the machines to sell, and will put them running in their vicinities, a fair discount will be allowed.

For terms, and conditions of sale, and warranty, see the Albany Cultivator, Genesee Farmer, Prairie Farmer, and American Agriculturist; also, catalogues and circulars of the Albany Agricultural Warehouse and Seed Store.

These machines are acknowledged superior by all who have used them, and having been extensively used since 1841, are known to be durable—and are much improved in several respects.

The cost of thrashing with these machines, has been variously estimated at from one-half to one-third that with the ordinary sweep powers.

Annexed is a statement of expenses of operating a two horse machine, compared with the ordinary kind—as given by an extensive farmer in Illinois, the past season:

Five men in thrashing time to thrash and clean, averaging 200 bushels per day for market,	$5 00
Two horses,	1 00
Boarding 5 men and two horses, at 3s,	2 63
	$8 63

Amounting to a little over 4½ cts. per bushel—while he was enabled at all times to take advantages of prices, seasons, &c., and to do his work without being dependent upon others for labor or machines.

While his expenses, when he hired machines were never less than the following:

For thrashing 250 bushels per day, at 5 cents,	$12 50
Furnishing four horses of six, (2 belonging to machine,)	2 00
Six men, (besides two with machine,)	6 00
Boarding all hands and horses,	5 25
	$25 75

Amounting to about 10½ cents per bushel. And if to this be added the average loss by imperfect thrashing and separation of grain from straw, more than with Wheeler's Thrasher and Separator of not less than five per cent of grain at one dollar per bushel, would amount to nearly 15½ cents per bushel, or more than three times the expense with Wheeler's machine. To say nothing of the delays and losses consequent upon depending upon others, &c.

The foregoing is but a fair statement of the expenses of the majority of grain-growing farmers for thrashing; and where labor and grain are valuable, these savings are well worth counting.

All orders and communications are solicited, and will receive prompt attention. HORACE L. EMERY,
No. 369 & 371 Broadway, Albany, N. Y.

Woodbury's Horse Power and Separator.

THE Subscribers, having erected extensive works, for manufacturing WOODBURY'S PATENT IMPROVED HORSE POWER AND SEPARATOR, are prepared to furnish a machine to order, combining greater simplicity, durability, and operating much easier than any other in use. The Horse-Powers are mounted, and operated on wheels, thereby saving three-fourths the usual time in setting up—and we will warrant it, together with the Separator, superior to any in use.

Communications for further particulars, (post-paid,) cheerfully responded to. J. & D. WOODBURY.
Rochester, N. Y., June 1, 1849. (5-3t*)

Seeds and Implements.

GENESEE SEED STORE AND AG. WAREHOUSE—Irving Hall, opposite the Eagle Hotel, Buffalo-st—Having purchased the Agricultural and Seed department of Messrs. Nott, Elliott & Fitch, we intend going more extensively into all the branches of our business. We shall keep constantly for sale, all kinds of Imported and American Field and Garden Seeds, and a large assortment of the most approved Implements and Machines used by the Gardener and Farmer. We manufacture Pennock's Wheat Drill, (the most perfect and substantial Drill in use,) the celebrated Massachusetts Eagle C Plow, Drags, Cultivators, &c., &c., all of the most approved patterns and construction, and keep a full supply of all the Boston and Worcester Plows, Sub-soil, Delano's, Burrall's Shell Wheel, Anthony's Patent Index, &c., &c.

In addition to our stock of implements, &c., we think we can say with perfect confidence, we have one of the largest, most carefully grown and best selected stock of FIELD, GARDEN and FLOWER SEEDS in the country, including several kinds imported from Europe. Farmers, Gardeners and Dealers would consult their interest, and perhaps insure good crops, by calling at our establishment. RAPALJE & BRIGGS.
Rochester, May 1, 1849.

Agricultural Books.—A large assortment of Books on Agriculture, Horticulture, &c., for sale at this Office. See list of works and prices in advertising department.

Also—complete sets of the Farmer from its commencement, (except the 2d volume,) substantially bound, which we will sell at 50 cents per volume. These volumes are not suitable for sending by mail—but we have copies of vols. 6, 7, and 8, bound in paper covers, which may be mailed.

CONTENTS OF THIS NUMBER.

Rearing, Keeping and Fattening Domestic Animals, ... 153
Limestone Soils, ... 154
Agricultural Education 155
Mr. Vail's Sale of Short Horn Cattle, ... 156
Cultivation of the Maple; Cure for the Bots, ... 156
Agricultural Geology, ... 157
The Horse—Improvement in Breeding, ... 158
Heavy Fleeces, and how Obtained, ... 159
Lime as a Manure; Hens eating their Eggs, ... 159
Hedge Fences; Cure for the Heaves, ... 160
Feeding and Managing Milch Cows, ... 160
Cheese Factories in Ashtabula Co., Ohio, ... 161
Peas and Pea Bugs, ... 161
Lightning-Rods or Conductors, ... 162
Plowing—Sawdust as a Manure, ... 162
Notes from a Wisconsin Farmer; Wind Mills, ... 163
Seymour's Drill and Broadcast Sowing Machine, ... 164
Cattle in Chautauque County, ... 164
Cost of Fences in the United States, ... 165
A New Water Drawer; Wheat at the South, ... 165
Use of Inferior Farm Implements, ... 165
Manufacture of Cheese, ... 166
Benefit of Agricultural Papers, ... 166
A New Manure; Selection of Stock; Vinegar, ... 167
Rules for Raising Poultry; To keep Fish Alive, ... 167
Chess; Ag. Fair in Michigan, ... 167

HORTICULTURAL DEPARTMENT.

Hardy Flowering Trees and Shrubs, ... 168
Hints for July; Effects of the weather on the Peach, ... 169
The Nemophila; Apples, ... 169
Effects of the past Winter on Trees, ... 170
Culture of Orchards; The Apple Tree Borer, ... 170
Degeneracy of Apples; Cherry Seeds, ... 170
Garden Snail or Slugs; Paradise Stock 170
Botany—Structure and Functions of the Stem, ... 171
To Destroy Weeds in Gravel Walks, ... 171
Editor's Table—Notices, &c. 173

LADIES' DEPARTMENT.

Domestic Education; Female Culture, ... 172
Invention for the Ladies; To dress Rice, ... 172

BOYS' DEPARTMENT.

Premium Arithmetical Questions; Errata. 172
Moral Character; Never go Back, ... 172

ILLUSTRATIONS.

Geological illustration, ... 157
Seymour's Drill, ... 164
New Water Drawer, ... 165
The Nemophila, ... 169
Botanical illustrations, ... 171
Hussey's Reaper, ... 174

Market Prices of Agricultural Products.

New York, Thursday, June 21.

FLOUR AND MEAL.—The market for Flour is without marked change but rather heavy. At the close, however, there was rather more firmness. The receipts are still very moderate. The sales are 7,500 bbls, of which 3,500 were fine at $4 06 *a* 4 12½ with some at 4 18¾. The range for superfine is 4 37½ *a* 4 50 for common and good State; 4 50 *a* 4 62½ for good and straight Western, and 4 87½ *a* 5 for pure Genesee—fancy 5 12½ *a* 5 37½. There were also sales within a few days of 5,000 or 6,000 bbls, sour at 3 87½ *a* 4. for shipment including a large portion of the quantity on the Market. Of the sales, to-day, 5,000 bbls were for export The sales of Southern are 600 or 700 bbls at 4 87½ *a* 5, mostly at $5. Meal is firm at $3 for Jersey, with sales 400 bbls. and 500 do. Brandywine at 3 06. Rye Flour is $3 *a* 3 06. with sales 1,000 bbls.

GRAIN—For Wheat there is but a moderate demand, with large supplies. The market is heavy. We hear of no transactions.—Corn is also heavy, with sales 65,000 bush at 53c. for damaged, 59c for Jersey round white, 59 *a* 59½ for mixed Western, and 62½ *a* 63½ for round Northern, closing at about 63c. The market stands 1c a bushel below yesterday's rates The quantity offering is large. Sales 3,000 bush. Rye at 58 *a* 58½c delivered. Oats are 34½ *a* 36, and in fair demand. Sales 15,000 bush.

PROVISIONS—The Pork market is heavy, mess at $10 37½, and prime at $8 81¼ *a* 8 87½. The sales add up 500 bbls. at these figures At the close mess was dull at $10 37½. In Beef there is a moderate inquiry, with sales 200 bbls. at $11 50 for country mess. $12 50 for city, $12 50 *a* 13 for extra Ohio and Chicago, and $9 25 for prime. Sales 500 bbls Lard at 5¼ *a* 5½c. for grease, and 6¼ *a* 7c for fair and prime. In cut meats there are but 350 bbls and tcs at 4¾c for Shoulders and 5¾ *a* 6¾ for Hams Good demand for Smoked Beef at 11 *a* 11¾c. Butter is heavy, with sales Western at 10 *a* 14c—but few lots bring over 12½. Ohio 7 *a* 9c.

ASHES—Are $5 50 for Pearls, with sales 150 bbls. Pots are $5 56 *a* 5 62½, with sales 50 bbls.—*Tribune.*

Wire for Fences.

WIRE of the best quality, of all sizes, bright, annealed, or galvanized. Price, from $7 to $12 per 100 lbs. When galvanized 2½ cents per pound extra. Wire is best galvanized, as this keeps it bright and it lasts much longer.

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Wheelers' Patent Improved Portable Railroad Horse Power and overshot Thrasher & Separator.

THE advantages of the above horse powers are—1. They occupy but little more space than a single horse. 2. They can be moved by the weight of the horse only, by placing them at an angle of 10 or 15 degrees. 3. They are comparatively light and portable, and can be easily transported. 4. They are simply constructed, not liable to get out of order, and move with little friction, the revolving plane gearing without any complex or intermediate wheels, directly into the pinion upon the shaft on which the pully belt runs.

The Thrashers consist of a small spiked cylinder with a concave plane over it, and a level feeding table. There are several improvements in the overshot thrasher. 1. They admit of a level table for feeding, thus enabling the tenders to stand erect, and control the motion of the horse and machine by means of a brake; by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top heavy substances such as stones, blocks, &c., drop at the end of the table, and are not carried between the spikes, by which they and the machine are broken. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is longer, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary thrashers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by those in the concave, which is stationary. 7. The separator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men, with a single Power, can thrash 75 to 100 bushels of wheat or rye; or four men with a double Power, 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day. All the above are compact and can be carried where wanted complete, or they may be readily taken apart and packed for distant transportation by a wagon or otherwise.

Price of single Power, ... $80
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" Separator and fixtures, ... $7
" Bands for driving, etc $5
" Saw mill complete, and in running order, $35.

The price of the double power, thrasher, separator, &c., complete, is $145, including rights of using. The above are sold singly or together as desired.

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